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Precision SHOOTING

THIS MONTH

MOSLER BULLET ACCURACY
by Col. Townsend Whelen

"BRIGHT DIP" CLEANER FOR BRASS
by Allan S. Noyes

A UNIQUE RIFLE TOURNAMENT—LETTERS—THE INFORMATION BENCH

a magazine for Shooters by Shooters

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DIFFERENCES OF OPINION

The following is reprinted from THE KANSAS STATE RIFLE ASSOCIATION "NEWS LETTER" for February 1959, which is written by Jim Scoville, the State Association Secretary.

"SURPLUS MILITARY WEAPONS, both domestic and foreign, are under attack by the U. S. arms manufacturers, hurting their sales, etc., etc. Nobody will argue the point that surplus weapons, particularly centerfire arms, have had a certain adverse effect on rifle sales, but haven't our arms makers priced themselves out of the market anyway? A 30 buck SMLE will kill a deer just as well as a factory gun selling for 3 or 4 times as much, and that 30 buck surplus weapon means a potential market for makers of sights, scopes, mounts and other shooting accessories. Another point to remember is that more shooting is done in the U. S. with .22 rifles and shotguns, by a very large margin, than is done with centerfire rifles or handguns. The sale of surplus arms has not affected .22 or shotgun sales to any great extent; there just isn't any large number of surplus .22s or shotguns available. Regardless of their effect on the arms makers, there can be no question that gunsmiths, sporting goods dealers, loading equipment manufacturers and accessories dealers have profited by these surplus weapons. Curbing the sale of these arms may do more harm than good to many people, I believe shooting should be encouraged among the citizens of the country, and if a 30 buck military weapon will help do it, I'm for it 100%. Despite all the hoopla about "super weapons," the armed citizen is our best defense. When the big bombs and missiles have been shot off and the dust starts to settle, it will be a civilian who crawls out of the wreckage with a beat-up Mauser, Springfield or SMLE and a pocketful of ammo, and it will be this same man who will stand against a common enemy while the politicians and big brass are running around screaming for money to buy more super weapons! It will be you, the shooter, who will suffer from a surplus arms ban, and you should make your views known to your representatives in Washington!"

There are a goodly number of shooting people with opinions in general in agreement with those expressed by Jim Scoville in regard to "surplus military weapons." There are other just as sincere people who will, at least in some degree, have different opinions on the subject.

It is quite probably a fact that a large number of those who buy the low cost obsolete military weapons are people who could not or would not buy a domestic weapon of current manufacture, either new or in better used condition. If, as will probably be the case, some portion of these people become interested in shooting for the sport of shooting alone, they may well add substantially to the total number of sport shooters in the country, and will eventually add to the potential sales volume of quality arms, ammo and accessories. Even some of those who buy the low cost obsolete military weapons to use only for a few days hunting each year (as do the great majority of those who buy current domestic weapons) may reasonably be expected to want a more modern, better weapon after a bit and become a prospective customer for a current domestic weapon.

Opposed to the above opinions are those in the shooting fraternity who label the surplus military weapons, especially the weapons of foreign origin, now being sold at low cost as junk and worthless. Others voice the fear that the low cost weapons will be purchased in numbers by people who will use them in an irresponsible manner and create ill will for all shooters. And, of course, the arms manufacturers who are presently feeling competition from the sales of this class of weapons.

This writer believes that in between these extremes mentioned lies the real "meat" of this problem, and the question which should be asked is: "Should all the citizens of the United States be denied their freedom of choice in the purchase of otherwise legal firearms in order that a very small number of manufacturers may be 'protected' from real or imagined financial loss?" On that question this writer would vote an emphatic "NO."

Individual freedom of choice, within moral and legal bounds, is one of the "freedoms" that are **supposed to be** guaranteed to United States citizens. Prohibition of the sale of surplus or other arms, either or both of foreign or domestic manufacture, would be an abridgement of that "freedom."

The United States **is supposed to** have a "competitive economy." A very few firms that manufacture a greater portion of the weapons that the "surplus military arms" are competing with are relatively minor divisions of huge industrial empires. Some relatively new business firms (or individuals) that are engaged almost if not quite entirely in the manufacture of firearms have proven that they can live, grow and prosper in today's competitive firearms sales field.

If financial aid to firearms manufacturers is absolutely necessary in order to assure the manufacturing potential for the national defense, there is the established method of protective tariffs. So far as "The Public GOOD" is concerned, this writer believes that the movement to **prohibit** the importation of foreign made firearms, or the sale of any and all surplus military firearms, is not only undesirable but is entirely unnecessary.

PHT

INFORMATION

We thank Colonel Hugh W. Stevenson, Executive Officer, National Board For The Promotion Of Rifle Practice, for supplying us with a copy of his reply to Donald P. Hallada, Wilmington, Delaware (to letter reprinted in February issue), and for his letter to the editor, both of which are reprinted herewith for general information.

Civilian shooters should realize that the intent for the expenditure of public monies (Government appropriations) shall be for the public good. In the case of the Government subsidized national rifle and pistol matches, the "public good" is the training provided in one item of the National Defense plan. Colonel Stevenson's letters reaffirm these facts.

If civilian sport shooters want national competitions on a purely sport basis they will have to provide for them as civilians, with civilian funds. The Trap shooters, the Skeet shooters, and several specialized minor groups of rifle and pistol shooters do themselves provide their own national competitions as sporting events.

Strictly civilian shooters are a minority in the present National High Power Rifle and Pistol Matches. So long as they are content to accept the Government subsidized matches for deciding their civilian championships, then the individual shooters should be willing to cooperate with the basic philosophy governing the operation of these competitions.

The two letters from Colonel Stevenson follow:

4 February 1959

Mr. Donald P. Hallada
2201 N. Franklin Street
Wilmington 2, Delaware

Dear Mr. Hallada:

Your letter of 7 January concerning the issue of National Match M1 rifles at Camp Perry, Ohio, has been received in this office.

In a rifle match, the man with the best equipment and who is also the best shot will always be a contender for a top place. Military shooters have the best equipment and are for the most part above average in ability. It is not surprising that they win most of the matches.

Five years ago the M1 rifle was a clunker and the element of chance played a large part in determining the winner in any match fired with it. Since that time the military teams have been permitted to work on the M1's within certain limits with the result that now the M1 National Match Rifle is one of the finest target rifles in the world. It would still be a clunker had we adopted the method you suggest in your letter at the National Matches.

The Ordnance Corps has improved the M1 and made it into a real National Match rifle simply because the service teams pioneered in this field and insisted that the Ordnance Corps incorporate improvements from year to year.

The National Match rifles now made available to civilians at Camp Perry are the equal of those issued to service teams. Those issued in 1959 will have the so-called ½ minute clicks, an improvement developed by service teams and the California Civilian Team.

The Ordnance Corps wants to turn out the best National Match rifle it can, but in order to do this it must have the benefit of the experiences of many people.

I'm afraid we would not make many improvements on our weapons if we just issued run-of-the-mill service rifles each year at Camp Perry, also, we would not have many people who would want to shoot them.

As I indicated before, the National Match M1's issued at Camp Perry have all of the improvements which have been developed up to the previous year.

Any civilian can buy an M1 and tune it up to suit himself as long as he conforms with the limitations of AR 920-30.

I am sorry I cannot agree with you that the interests of shooting would be advanced by having everyone shoot a rifle drawn by lot out of the same pot.

Soon we will have a new military rifle, the M-14, and we expect that its development into an accurate match rifle will be accelerated by permitting service teams and individual purchasers to make modifications within limits specified by regulations.

I thank you very much for your letter and the interest you have indicated in shooting.

Sincerely yours,
Hugh W. Stevenson
Colonel, GS

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20 February 1959

Dear Mr. Teachout:

I have noted on page 15 of the February 1959 issue of Precision Shooting that you have reprinted some remarks and a copy of the letter Mr. Donald P. Hallada sent to this office.

In order to correct any misunderstanding that may arise concerning the philosophy of the matches, I would like to call your attention first to my reply to Mr. Hallada, copy inclosed.

I would like to point out that the present high degree of accuracy of the M1 is a tribute to the initiative and inventiveness of service and civilian shooters who have brought this weapon to its present degree of effectiveness through experiments and improvements.

The National Match M1 rifle is issued by the Ordnance Corps to service and civilian teams and individuals alike at each year's National Matches. These rifles have incorporated in them all of the improvements which have been devised up to that time. If the scores made with the M1 in the National Matches are not testimony enough as to their excellence then, certainly, the results obtained at Fort Benning by the United States Army Advanced Marksmanship Unit do reflect this.

In testing regularly-issued National Match M1 rifles, the USAAMU finds that the average group size at 300 yards rapid fire from an accuracy cradle is five inches. Three groups of eight shots each are fired in a rapid fire cadence in order to arrive at this average. Many rifles go less and there are two which are shooting two inch groups. The NBPRP saw fit last year to reduce the V ring to four inches in order to eliminate ties. It is a physical impossibility for any one or any organization to make a group of rifles of equal accuracy, be it the '03, the Model 70 or the M1.

Final plans for the fifth annual Milwaukee Sentinel Junior Rifle Championships, a feature of the annual Sentinel Sports Show, March 22-30, were explained by Dave Duffey, the newspaper's outdoor writer, (left) to Dexter Rhodes, Bill Johnson, Captain Charles Drake, USA, and Chet Snavely, (left to right). 132 teams have been competing in the prior postal qualification phase of the tourney, with 60 teams to qualify for the finals. In addition to the Junior Rifle Championships, the Sentinel also stages a four position shoulder match for the Wisconsin College ROTC Rifle Championships. All ten college and university ROTC units in the state will have teams competing in this tournament, also a feature of the Sentinel's show.

In regard to Mr. Hallada's idea of drawing lots for a group of service rifles, I must point out that the International Shooting Union Rules, paragraph 40 and 41, indicate that this is done only in the case of **Army Rifle Championships.** Under this system, each country competing in the match receives two rifles on loan at least four months prior to the start of the matches and, also, between 2,000 to 5,000 rounds of ammunition which is paid for. The two loaned rifles are returned to the host country upon the occasion of the match and the rifles needed for the competing team are drawn by lot on the day before the match. No adjustments to the rifles are permitted except those made by a gunsmith who may enlarge the sights slightly but not change their form. It must be realized that it would be impossible for a tournament of the size of the National Matches to operate under such a procedure.

Another point which is overlooked is that the philosophy of the National Matches was to teach the use of military weapons mainly to civilian citizens. Since the present service arm is no longer a bolt action rifle, it can be easily recognized that emphasis must be placed on the semi-automatic military-type weapon now coming into such common use.

If the NBPRP had not taken this action it would have had to admit failure in accomplishing its mission and answer to the Congress for this failure. Such a failure would, of course, have endangered the support of civilian marksmanship as is provided through the Director of Civilian Marksmanship.

I trust that these remarks of mine and the inclosure attached hereto will serve to clarify the situation as far as the National Matches and the use of the M1 rifle are concerned.

I want to take this opportunity to thank you for the editorial on page 5 of the February 15 issue of Precision Shooting, subject: "An Individual Responsibility." It expresses very well the purpose and value of the Small Arms Firing School at Camp Perry.

Sincerely yours,
(Signed) Hugh W. Stevenson

COMING MATCHES

(We will list place, date, type and title of match, name of sponsoring organization, name and address of contact person, at a nominal flat rate of $2.00 per insertion, prepaid with insertion order. Insertion orders must reach the Precision SHOOTING office, 61 Depot Street, Lyndonville, Vt., at least 45 days before date of match for single insertion orders. For multiple insertions, 30 days additional must be allowed for each additional insertion desired.)

ALBANY, N. Y.: Forbes First Annual .30 caliber National Match Courses. Karner Range, Albany, New York, May 9 and 10, 1959. Donald W. Winne, 20 Frederick Ave., Albany 5, N. Y.

ALBANY, N. Y.: New York State Smallbore Outdoor Championships. Forbes Rifle and Pistol Club, Inc., sponsor. Karner Range, Albany, N. Y., July 4 and 5, 1959. Donald W. Winne, 20 Frederick Ave., Albany 5, New York.

ALBANY, N. Y.: FORBES SIXTH ANNUAL HIGH POWER LONG RANGE TOURNAMENT, Karner Range, Albany, N. Y., July 25 and 26, 1959. Donald W. Winne, 20 Frederick Ave., Albany 5, N. Y.

ALBANY, N. Y.: Forbes Seventeenth Annual Smallbore Tournament. Karner Range, Albany, N. Y., September 27, 1959. Donald W. Winne, 20 Frederick Ave., Albany 5, N. Y.

The Army's Advanced Marksmanship Unit at Fort Benning is clearly demonstrating what intensive training, practice and competition can accomplish in improvement of rifle and pistol marksmanship. While civilian shooters may not be able to duplicate the work of this Army unit, many clubs could benefit from the demonstrations of the worth of group training and effort over the "every-man-for-himself" philosophy which is all too prevalent in civilian clubs.

THE COVER PHOTO

The silver awards to aggregate winners, and medals to match winners, in the Northern California Gallery Rifle Championships, the annual rifle match that the Willows Rifle Club has built up through hospitality and friendliness to a range capacity and turn-away entry. In addition to medals and silverware were a very generous list of valuable and useful merchandise was awarded to a long list in the grand aggregate.

By shooting an astounding 199 score offhand, U. S. Marine Corps shooter Emmett Duncan took the championship prizes right off the fingertips already half reaching to clutch them at the start of that offhand match. Duncan's win was a repeat of last year's performance at this same match.

THE TOURNAMENT CIRCUIT

WILLOWS, CALIFORNIA

The Eighth Annual Northern California Gallery Rifle Championship, fired Jan. 31 and Feb. 1 at the Willows Rifle Club, Willows, Calif. was highlighted by Emmett Duncan, USMC, who came from behind to keep the championship title he won last year. Duncan scored 200 prone, 198 sitting and 199 kneeling. At that stage he did not look like the real contender, since Nick Kroeze of Marysville, and H. W. Newton hadn't dropped a point in the first three matches and both Fergus Ward and Gordon Taras were down only one point. However, Duncan stood up and very calmly shot 199 offhand to nail things down with a 796 aggregate score, six points over his 1958 winning score.

Fergus Ward of San Francisco shot a third place 192 offhand to keep him in the runner-up slot he gained last year with his 791 aggregate, two points up on his '58 score. Nick Kroeze shot a 7th place 190 offhand but it was good enough to keep him in third spot in the aggregate with 790, three points up on his '58 score. Other high scores, with 1958 scores in comparison, were:

	1959	1958
Alan Dapp	789	786
H. W. Newton	789	
Kenneth Cummins	788	784
Gordon Taras	788	785
Robert Wood	785	
Glenn Williams	785	
Duane Jenner	783	
Norman Newman	783	
Hi-Ex, Gregg Paillex	783	
Hi-SS, Art Gilchrist	769	
Hi-Mk, Lionel Chase	753	

In the team championship, four man teams, five shots in each of four positions, the Albany, Calif., Rifle Team creedmored the Ukiah #1 team by a single point in the offhand position, both teams with a 779 team total. Albany took the lead by 1 point in the prone position; Ukiah tipped the balance to a 1 point lead sitting; the two teams tied kneeling. For Albany Gordon Taras scored 199, Fergus Ward 194, Chris Petersen 194 and Fred Forster 192. For Ukiah it was I. Brown 198, R. Wood 195, K. Cummins 194 and R. Palmer 192.

A total of 124 shooters competed, with 21 teams in the team match. The Willows Rifle Club is sorry that it can not accommodate more competitors at this contest but time and range space will not permit more. It is a pleasure every year to renew old acquaintances and make new ones.

The item of equipment this year that brought out the most chuckles was a palm rest fashioned from a beer can.

Very much enjoyed by everyone were the pictures of the U. S. International Rifle Team on the trip to Moscow last year. Capt. Riggs of the USMC brought along the captioned pictures showing European ranges, shooters and equipment.

Adrian Landberg

HOMESTEAD, FLORIDA

For eight years Dr. F. P. Archer, Jr. has been host to Florida smallbore addicts on his little 8 point outdoor range located in his back yard near Homestead, Florida. Heretofore these tournaments have been restricted to 24 competitors firing in 3 relays from 8:30 A. M. until near dark with a 160 shot program (four 40 shot matches).

However, in recent years the number of entries began to exceed the available openings by considerable numbers and it was decided to attempt a staggered program on two consecutive Sundays by dividing the entrants according to classification.

With increasing junior activity in South Florida, a new trophy came into being for the Junior Championship of the annual Winter Tournament. This is now known as the American Legion Commander's Cup donated by Dr. F. P. Archer, Sr., father of the tournament sponsor and a former American Legion Commander.

On January 18th it was James Hodges (SS) of the U. S. Coast Guard 7th District all the way, taking either 1st or 2nd place in every fired event for a 1580 X 1600 aggregate. In the junior division, not only did Leigh Baxter take the Commander's Cup but ended up 3rd overall in the grand aggregate as well. Leigh is a pretty 13 year old miss from the Miami Springs Junior Rifle Club who shoots a Rem. 37 and EZXS using iron sights exclusively.

On January 25th it was a battle all the way between expert Clifton Huston from St. Petersburg and veteran master T. C. Rossman of Hollywood, ending up with Huston topping the grand aggregate by one point although Rossman had a 2X margin where it didn't count (1596-104 to 1595-106). 14 year old Billy Tourch, though a bit off form, still ended up in 6th place in the grand among a very tough field.

NEW YORK CITY

The Madison Rifle Club (New Jersey) won the four man club team match in the tournament sponsored by the Metropolitan Rifle League and fired in Brooklyn on January 18th. The course of fire was 40 shots per man at 100 yards, indoors, with smallbore rifle and any sights, prone position. Twelve teams competed.

For the winning team M. Jury scored 400-23, Rans Triggs 399-33, Fred Triggs 399-25, J. Holman 399-21 for team total of 1597-102. The next three spots went to Roosevelt Rifle Club #1 with 1595-118, Roosevelt Rifle Club #2 with 1595-114 and Carpenter Steel Rifle Club with 1595-100.

Brothers Irwin and Sam Tekulsky fired identical 400-29 scores to win the two man team match with 800-58. H. Updegrave and J. Hollinger were runners-up with 800-55. Harry Stone and Walter Tomsen fired the high X-count 799 (799-64) for third, while Barbara and Lloyd Norton from Bridgeport, Conn., were fourth with 799-57.

Irwin Tekulsky won the individual aggregate (scores fired in both team matches) with a possible 800-60. Rans Triggs was runner-up with 799-67 while Lewis Hazelton and Lloyd Norton ranked third and fourth with 799-60 scores.

NEW HAMPSHIRE GALLERY RIFLE

D. Cahoon of Boxford, Mass. topped the 42 shooter field with a four position aggregate 778 in the Northern New England Rifle Sectional conducted by the Piscataqua Rifle and Pistol Club at Portsmouth, N. H., February 7 and 8. Richard Betz of the host club was runner-up with a 777. Cahoon won the kneeling match with a 198 but Betz didn't hit the top in any of the four matches—just kept shooting consistent good scores.

High expert in aggregate was P. Lambert, No. Andover, Mass. 766; high S. S., V. Hatch, No. Reading, Mass. 761; high mks. D. Rive, Arlington, Mass. 761; and high unclassified C. Bryant, Newcastle, Maine 762.

Bob Garland, Portsmouth, won the prone match with 200-20 plus 30x. E. Lane, Gloucester, Mass., ranked V. Ahola, Scituate, Mass., both with 200-19x scores, to win the sitting match. William Pope, Portsmouth fired another 198 for runner-up spot in the kneeling match. W. Reid won the offhand match with a 190.

A team from the host club won the team match with a 1538 score.

A TRI-STATE GALLERY RIFLE MATCH

For the past several years state teams from Connecticut, Massachusetts and Rhode Island have been firing a series of three matches a season, one match in each state. The course of fire for the match is 10 prone, 5 each sitting and kneeling, and 10 offhand for each shooter; 15 shooters on a team with 10 high scores to count for team score. Connecticut has been a perennial winner of this series but by steadily narrowing margins.

This year only one match is being fired, and that at North Reading, Mass. on January 18th. Connecticut won again but by the very narrow margin of three points over Massachusetts—2886 to 2883. Rhode Island scored 2873.

Connecticut won the match in the sitting and kneeling position with a 17 point margin over Mass. and 19 over R. I. In the prone stage, Mass. beat Conn. by 1 point and R. I. had 2 points better than Conn. Again in the offhand position, both Mass. (by 13 points) and Rhode Island (by 4 points) beat Conn.

BREAKS OF THE GAME

Strange indeed can be "the breaks" in the shooting game, and sometimes almost heart-breaking. An example. One of the two highest scoring teams in the Vermont State Gallery Rifle League has lost two matches this season to the same "also-ran" club in the league, the while holding its own or winning against the other top teams in the league. Those two wins didn't greatly help the also-ran club (that has been losing matches to other also-ran clubs in the league) but they sure have upset the apple cart of the high scoring club.

Dr. F. P. Archer, Jr. (left) who conducts the popular smallbore rifle matches on his private range at Homestead, Florida, Leigh Baxter, 13 year old winner of the Commander's Cup, and Clifton Huston, grand aggregate winner at the annual Winter Tournament.

A UNIQUE RIFLE TOURNAMENT

The annual Indoor Gallery Rifle Tournament sponsored by the Bay Rifle Club at Coos Bay, Oregon (which was advertised in our Sept. and Oct. issues) and fired Jan. 30-31 and Feb. 1, was unique in several respects.

The tournament course of fire included the usual 20 shot matches in the prone, sitting and kneeling positions BUT the standing match was the feature event of the program, calling for 50 shots fired in 1 hour.

Only "across the board" entries were accepted and the one fee for the tournament was $11.00. That may sound high but wait until you read about the prize awards.

There were no medals awarded and the only trophies were two junior awards, there were no cash awards BUT the merchandise awarded to a generous number in all matches must have totaled nearly one thousand dollars in retail value. The BIG prize went to the winner of the feature match—the 50 shot offhand match—and it was a certificate entitling the winner to select FIVE HUNDRED DOLLARS worth of any items he desired from Stoger's catalog. C. A. Polette from Libby, Montana won this top prize with a 480 X 500 score. His 10-shot targets scored 93-97-98-95-97.

Marlene Bellinger from Seattle, Wash. was runner-up with a 476 score to win a Weatherby rifle scope. Laura Boyt, Renton, Wash. won a Leopold rifle scope; Loye Wilson, Centralia, Wash. an Ajax rifle scope; Frank Tetrault, Missoula, Mont. won a MEC shot shell loader; and James Dodson, Prineville, Ore. won a FLAIG Rifle barrel—all with 475 scores and ranking in the above order. Another special feature of this unusual match was a husband and wife combined score ranking, with Ruby and Dalph Granthum from Portland, Oregon, winning the Bushnell spotting scope and Freeland Bipod scope stand. Top class prizes in this offhand match were in the $25 to $40 value range.

Top prizes in the other three matches were in the $35 to $50 value range, with a generous number of other prizes in all classes. Since 40 of the 75 competitors in the tournament were of Master class, it took high scores to win or place in any of the matches. Ruby Grantham won the prone match with a 200-102 and 7 others went past the perfect 20 shot score. Forty-one possible 200 prone scores were fired. Lones Wigger from Bozeman, Mont. won the sitting match with a 200-21. Adrian Bahler, an All-American collegiate shooter under Oregon State College colors whose home is in Coos Bay (and son of the Bahler Die Shop proprietor) won the kneeling match with a 200-16, just edging out Harold Lapp from Portland, Ore. who had 200-15.

Laura Boyt was high woman and Frank Tetrault was high man in the grand aggregate, both of them with a 1071 score. They both fired 475 offhand but Boyt fired a 197 kneeling to Tetrault's 196. Tetrault shot in sharpshooter class.

Do you now wonder how the Bay Rifle Club got all these fine merchandise prizes for a very nominal 75 competitor tournament? That is another of the unique features. The Club itself took care of the big $500 merchandise certificate for the offhand match. The really unusual feature about the donated prizes is that they gave the prize donors some real advertisnig value instead of just "begging" for prizes. Their program, which was given a wide distribution, is of 8½ X 11 inch sheet size to accommodate normal advertising sheets of the prize donors. In addition to the printed advertising matter there was in addition from a half page to a full page personal comment pitch about the product and the donor, as well as what the prize would be awarded for. This radically differs from past practice in most cases, when if a prize donor wanted advertising in a program, other than the firm name printed along side the donated prize, he had to pay for the ad in addition to giving the prize; and with donated merchandise prizes running to values over $50.00 delegated to the grab bag, fish-pond or consolation prize category.

Ted Smith, Shooters Accessory Supply, who has dreamed up and made available to shooters some mighty handy gadgets at reasonable prices, starting with the Little Dripper, evidently handled putting the program together, and made a very practical, meaty and cooperative job of it.

PHT

HI-STANDARD TARGET PISTOLS

By Kent Bellah

High Standard, world's largest maker of .22 handguns, claim more than 60% of .22 guns on firing lines are their products. They made a real bid to increase this percentage by re-vamping their top .22 auto target pistols last year. What they call the "Guns of Tomorrow, Today" have a space-gun look for the space age, that some people like and some say they don't. Paper punchers are much more interested in scores than gun lines, so I don't think the looks will have much effect one way or the other on sales. Those who say the pictures look a bit too modern generally like the guns after handling one. They are no more unconventional looking than foreign match pistols. The features are designed for a definite purpose and are as functional as the claw on a claw hammer.

After the U. S. Rapid Fire International Team used Citations with good effect, I gave one a work-out after fitting it with H-S checkered Walnut right hand thumb rest target stocks at $6. This had a 6¾" barrel and shot so well that I sold it so I could try a 8" Supermatic Trophy, the prestige number that H-S

(Continued on Page Six)

Hi-Standard's prestige Supermatic Trophy has a high finish, and custom features to give it a modern look. Features are functional.

Hi-Standard Target Pistols

(Continued from Page Five)

calls "The ultimate of the gun makers art." This may, or may not, shoot better than the $25 cheaper Citation, but is worth the difference to shooters who appreciate really beautiful fitting and finish inside and out. There is nothing crude about the Citation, but the finish is "standard," and I much prefer the Walnut target stocks that are standard equipment on the Trophy, along with a neat limed oak case. Both guns have chambers and bores that look like fine custom work. The Trophy has a long lasting deep blue on super polished steel. Trigger and safety are gold plated.

The Trophy performed like a circus pony at 50 yards from a bench. The real thrill came when it wadded up some better off-hand groups than I've ever fired with Remington .22 L. R. Standard Velocity (not Match) ammo in any .22 handgun! I'm saving some of the same lot to compare groups with a 10" barrel on the Trophy when time permits, along with Match ammo. The 8" tube balances and holds beautifully with the 2 oz. and 3 oz. weights near the muzzle. The weights can be adjusted to give the 2 ounce heavier 10" tube the same "feel," or a weight can be removed if desired.

Many shooters are finding match grade guns have an advantage for informal targets and plinking. Small game hunters might remove the 5 oz. weights and compensator for field use. Efficiency is not far behind an open sighted .22 rifle. The bag won't be much smaller and nearly everyone finds handgun hunting a lot more fun.

H-S sharpened the sight picture by moving the excellent micrometer rear sight forward of the slide, on the barrel. I think this is worth as much to accuracy as the non-recoiling feature. Seasoned competitive shooters may like the barrel weights well forward for steadier holding, while a novice might like them near the rear, or one or both removed. It is mighty nice to adjust the weight and holding to your needs. The detachable muzzle brake is highly efficient in rapid fire.

The new lockwork is excellent, better than in older models. Trigger motion can be adjusted, and kept to a mere .006", so little you can't detect it, with the hammer positively cocked for each shot. The trigger let-off is superb. Mine is adjusted to 28 ounces. H-S says, and I believe it, that the vibration-damping grooves and barrel contour increase accuracy. At any rate, both Citation and Trophy will outshoot their older models, and I believe they are the greatest contribution H-S has made to better accuracy.

The moderate priced, target grade Tournament ($65) has the new lockwork, a heavy barrel, with the same micrometer rear sight but on the recoil slide. It lacks the new barrel contour, muzzle brake, sliding weights and vibration-damping barrel grooves, but has the anti-backlash trigger adjustment. The accuracy difference will not be apparent to average shooters of these quality guns.

The new Double-Nine revolvers on the Sentinel action were the largest seller in the H-S line last year. At only $44 you could hardly expect a match grade gun, but they are nice plinkers. Designed with a western shape like old single actions, many shooters like the excellent plow-handle grip originated so many years ago. These have the added advantage of double or single action fire, a 9-shot, swing-out cylinder for faster loading and ejection, and a rear sight movable for windage. A nickle finish is $4.95 extra. The shape makes a nicer looking gun than the Sentinels, and they handle and balance well.

FRIENDLY COMMENT

By Allyn H. Tedmon

Inasmuch as Precision SHOOTING is the only rifle sheet left that prints any comment other than of the "Staff," I am taking this opportunity to add a line or two. The story by Col. Whelen, page 6, January '59 issue of P. S. was especially interesting to me as years ago I knew and hunted the Wyoming area that he so recently visited. If one will but change the figures .243 and .244 to .250-3000, the first two paragraphs could have just as well been written back in 1915 as in 1958. The main difference would be that by 1917 nearly every guide and Dude Wrangler in the Cody area owned and swore by a .250-3000 Mod. 99 Savage rifle. I know because I was there. So far as I ever could learn Donald Stevenson, Biological Survey predatory animal hunter, and myself were the first persons to have one of these very new .250 rifles in the Cody and Yellowstone Park country. I still have my rifle with its third barrel.

Back to Col. Whelen's remarks as to the fine killer the .243 proved itself to be on the descendents of the deer and elk we killed back in 1915 on, with the .250 and its plenty hot 87 grain soft point bullet. I'd remind you that for my money the .250 Savage, especially as now loaded with the 100 grain Silvertip, for instance, can go right up to Les Bowman's dude outfit and make another "183 clean kills" along side of any of the 6 m/ms. And I personally by no manner of means consider either the .243, .244 or .250 elk guns by any way you add it up. And I'm talking of the underloaded .250 factory ammunition that you get over the counter, which even in a 22 inch barrel and using a hundred grain bullet—same as the .243 used—equals, and in some rifles betters the velocity etc. shown by the 6 m/ms under same conditions. All of which is not typed to belittle the 6 m/ms. They are both dandy cartridges even if they have been badly oversold, but the only thing they will do that the .250-3000 Savage won't do is to hold up a teeny-weeny bit flatter at extreme woodchuck ranges simply because a 6 m/m bullet figures a bit more setional density than a .25 caliber bullet of same weight—to quote Ye Old Rifleman, Willard B. Chappel, who knows.

The reason I'm taking time to write these lines is to remind any of you who own a grand little .250 Savage rifle, or one of the many Model 54 and Model 70 Winchesters that were made up for the .250-3000 cartridge, and don't forget the many fine custom rifles chambered for this self same cartridge, that your fine .250 is just as good today as it was the day you bought it. If you are a reloader you can bring that little .250 right up into the advertised 6 m/m class. If you are not, bear in mind something that a little sparrow recently hinted to me. The day may not be far distant when some of the best handloads may be over-the-counter stuff.

Another tip for the .250-3000 clan, and those about to join it, is that for some time back Savage has been using a 10 inch twist in its .250-3000 barrels in place of the standard 14 inch twist that made the .250 famous. The reason this charge was made is of course to give fine accuracy with the longer 120 and heavier grain bullets for the fiends who would hunt Cape buffs with a Daisy airgun only that our keen British cousins won't allow that, don't you know. At present (rather in the past) in order to get hunting accuracy with the old 14 inch twist and these longer bullets, they had to be souped up to gain the necessary speed. As to pressures, if your rifle is a Savage Model 99 don't waste time worrying; the Model 99 is one of the strongest actions to be had; but of course you can blow any action with a fools load. For .250 loads study the Speer #1 Handbook; then use your brains. We have not two, but three very fine medium power cartridges. Don't let anybody tell you different.

Late last summer we heard about a "National Handloaders Association." Investigation indicated that this was apparently an association for manufacturers of equipment, accessories and components for handloaders. However, the way you folks are now cooperating, it appears we have an informal national handloaders association right here among you Precision SHOOTING subscribers.

We do [illegible]ve full particulars, but from what we hear from here and there it appears that our next international rifle team will be better armed and equipped than ever before—and that this is by reason of cooperative effort of the large arms manufacturers, individual custom makers of component parts and the military services.

NOSLER BULLET ACCURACY
A Letter Report

Dear Phil:

Wherever I went in the West last fall, and talked to experienced hunter riflemen, they all expressed the opinion that the Nosler partition bullets were at least as good in their killing power on big game as any other bullets of equal caliber and weight, fired at equal velocity. In fact most of my informants said that the Nosler bullet was decidedly superior in its killing power. But I could get little or no information on how accurate these Nosler bullets were, nor have I ever seen any data published on accuracy with them. The thought was expressed several times that the powder charges should be a grain or two lighter than with other bullets because of the bore friction offered by the thicker Nosler jacket. Note that all Nosler bullets have a wide groove in the jacket where the solid partition occurs, ostensibly to relieve bore friction at this point. I therefore determined to find out something first hand as to the accuracy and pressure with these Nosler bullets. This is my first and only partial report, but it is so interesting that I thought I would send it on to you.

January 31st was a clear day, but with thermometer at 18 degrees, and a cold wind of about 20 miles per hour from 2 o'clock. A bunch of fellows were going out to the range as they said that the road would be frozen and we would not get stuck in the mud. I decided to go along. I had some .243 Winchester loads made up with 100 grain Nosler bullets for my .243 Winchester Model 70 Varmint rifle for the first trial. This rifle has always given excellent results with the 100 grain Sierra bullet and either 44 grains of 4831 powder or 41 grains of 4350 powder in Western cases and Winchester 120 or Western 8½ primers, loaded to an overall length of 2.80 inch. I used this load as a control load, with 44 grains 4831 powder. All shooting at 100 yards, bench rest, 6X Unertl scope set at Zero for elevation and at .75 minute left to allow for the strong wind. The results were as follows:

Control load. 100 grain Sierra bullet, 44 grs. 4831, new Western cases, Western 8½ primer, overall length 2.80 inch. 5 shots at 100 yards in .80 inch, group centered .80 inch above aim, which is practically exactly where it should have centered.

100 grain Nosler bullet, 44 grs. 4831, new Western cases, Western 8½ primers, overall length 2.77 inches. 5 shots in 1.00 inch, group centered 1 inch high and 1 inch right from point of aim. 5 shots same load, in .90 inch, centered 1 inch high and .60 inch right.

100 grain Nosler bullet, 41 grs. 4350, new Western cases, Western 8½ primer, overall length 2.77 inches. 10 shots at 100 yards in 1.00 inch, centered 1.00 inch above aim and 1.00 inch to the right.

Note, first, that the Nosler bullet gave practically the same size groups as the Sierra bullet, and centered at practically the same place on the target, but slightly to the right. Possibly the reason why the Nosler bullet centered just slightly right was because it does not have quite as sharp a point as the Sierra bullet, and is very slightly more affected by the strong wind, but the difference is quite inconsequential.

This short trial seems to show most excellent accuracy for the Nosler bullet, and that it may be loaded with powder charges developed for other bullets of equal weight. I shall continue these trials with other Nosler .270, 7 mm and .30 cal. bullets, and report results to you, but not for a couple of months when it gets warmer. Gosh but it was a cold day for shooting.

Townsend Whelen

PS: Just got a letter from Willard B. Chapple of Pueblo, Colorado. Says he has one on me. Got his first deer in Michigan in 1885, and his freezer is full of this year's venison. Splendid. That must be the record for long continued deer hunting.

T. W.

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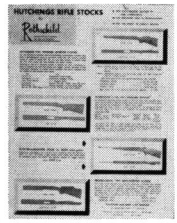

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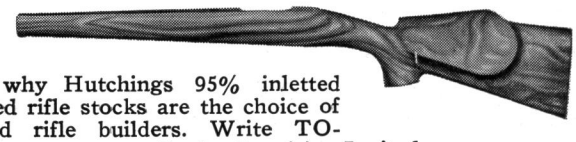

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L. B. Rothschild, Manufacturer, Dept. SP-3, 4504 W. Washington Blvd., Los Angeles 16, Calif.

LETTERS

Dear Sir:

We were glad to see the article on Silver Soldering but some of the comments concerning this technique we just can't go along with.

The strength of silver solder joints can and do exceed the yield strength of the base metal joined. We make hundreds of tests a week with an electronic tensile testing machine and I know that a properly made weld will seldom fail in the joint! Materials joined seem immaterial.

Let us look at the silver solder technique again with an eye on the joint thickness. A butt joint in stainless steel which was .0015" in thickness shows a tensile strength of 130,000 P.S.I. When the joint thickness increases to .002" the tensile falls to 120,000 P.S.I. In like manner an increase to .003" drops the tensile strength to 117,000 P.S.I.

Now let us look at the strength encountered with various materials. A joint with silver in soft copper which has a yield strength of 11,000 failed at a tensile load of 33,000 with fracture in the parent metal.

Magnet iron with a yield of 40,000 failed at 52,000 with fracture in parent metal.

S.A.E. 1020 (Machine Steel) with a yield strength of 50,000 gave a fracture failure in the joint at 65,000 P.S.I.

Drill Rod with yield of 65,000 failed in the joint at 83,000 P.S.I. All above examples are ½" dia. joints and all failed with loads which exceed the yield point strength of the parent metal!

The whole thing is based on good soldering or welding technique. Joint must be thin, parts must be clean, heat must be correct. We have used sliver soldering and all types of welding technique for years and always find the same answers when based on the correct methods.

We didn't intend this to be a treatis on silver soldering technique but we do want the home-shop-gun-bugs to get the right answers on what is really a very simple job which will give very fine results when done correctly. It might be well for those really interested to contact the Handy & Harman Co. of 82 Fulton St., New York 38, N. Y. They publish fine bulletins on the use of Silver Solder.

K. B. Meldrum, Beloit, Wis.
Tool Eng.—Fairbanks-Morse Co.

Dear Mr. Teachout:

No, there was not too much Teachout in the Jan. issue even though you seem to be doing most of the work. I enjoyed all the readin' matter, especially the "Bits About Bullets."

I was interested in Mr. Allan Noyes' views on full length sizing and will try the lubricant he mentioned. However, I do not full length size my own cases.

Up till about a year ago I was using full length dies for my Model 70 Varmint rifle in .243 Win. I tried so-called neck sizing with them and found it unsatisfactory. When the case was forced partially into the die the body was sized down causing the shoulder to move forward, resulting in an over-length cartridge from base to shoulder. This cuased the bolt to close hard which is hard on locking lugs.

I tried full length sizing and got partial head separation after 6 or 8 firings. That was enough of that. I sent to R. C. B. S. for neck size only dies in all the calibers I have rifles for. Also I bought 100 new cases for the .243 just to keep the record clean and I have had no trouble closing the bolt since. The new dies are just tight enough at the body of the case to keep it in alignment. Also, no messy grease or oil needed, just powdered graphite or Micro-fine Moly Kote; no elbow grease either. I ran a check on neck vs full length sized rounds for bullet runout and could see little differ-

(Continued on Page Eight)

(Continued from Page Seven)

ence. If anything the neck sized cases showed less runout. A micrometer indicator was used in the test.

I have read various articles on glass bedding and often wonder when poor results are reported if the fault is not with the material as well as the method. I am now using Brownell's Acra-Glass and results have been very satisfactory. I have used one other make for which the seller sings loud, long and high praises. This particular brand has the bad habit of shrinking away from the metal. This I have not found to be true with Acra-Glass. The mold release furnished with Acra-Glass is a sort of liquid cellophane which peels off when dry at completion of the job and provides clearance and insures against any binding or tight spots. One thing the directions are not clear about is just how much pressure to apply with the guard screws. I think the tendency is to use too much. I use only enough to force the compound to flow and completely fill in around the action. If much pressure is used the action could easily be strained or twisted.

When the barrel is a heavy one and I want it floating, I first shim the forend tip to the pre-determined clearance. In this way the weight of the barrel will not have any effect on the bedding of the action in the soft compound. After the job is complete the shims are removed.

When the compound is hardened I remove the barrel and action and clear the sides and front of the recoil lug by a few thousandths. Then I drill out the guard screw holes so the screws enter freely.

Seely Masker
Pleasantville, N. Y.

Dear Phil:

As to your questions with respect to my experiments, I might say right away that my experiments with the .280 Remington were a dismal failure. The rifle was a M/03 Springfield with a 6X Bear Cub scope in a Buehler mount and a try stock. No attempt was made to even inlet an extractor on the barrel which was a heavy sporter Flaig-Ace. The barrel was thoroughly checked over before the experiments began and found to be within acceptable 7 mm tolerances. All bullet weights from 120 gr. to 175 gr. were tried at 200 yards but only a very few even good groups resulted in about 500 rounds. The rifle was pulled apart and the barrel traded in to a gunsmith for fitting to a cheap sporter.

Several things were learned as a result of the experiments with this caliber. The problem of making cases which had a longer headspace length than the .30-06 was solved very simply although rather time consuming and very monotonous by the use of about five grains of Bullseye and a case full of Cream of Wheat and a grease wad to keep the mess together until the trigger could be pulled. The charge did not appear critical and was picked because of the size of the charge hopper minimum adjustment on one of my measures, plus the amount of Cream of Wheat thrown by a sugar measure used for adding same to the locally made home brew of many years ago. This method of fire forming tried as the result of reading about it in an earlier issue of P-S has been a real cost saver and makes possible fire forming indoors to those who are not blessed with a protected outdoor range this time of year. The only problem encountered was removing the unburned cereal from the barrel after conclusion of the experiment.

I cannot make any comments about the results other than to say that something must have been radically wrong as I have had along with other shooters in the area good results with the 7X57 and 7X64, in both sporting and target weight rifles.

The story about the experiments with the soft swaged bullets is a horse with another color. I got some of "Ernest's" (Crawford Hollidge) bullets. I objected to the light weight (150 gr. maximum) and I still say that he should twist someone's arm at Sierra and get some jackets for their 200 gr. .30 caliber bullet, make them into 180 gr. soft swaged bullets, then proceed to make Sierra sorry that they ever sold the jackets. I tried the 150 gr. bullets, after weighing some and finding that they were of true bench rest quality in this respect, in both the .308 and .30-06. The results, again at 200 yards only, made me realize that the .308 should be given another try in competition as the results looked like I was shooting a Varminter or .222 Remington. In fact I shot the smallest group I ever fired at 200 yards with a .30 caliber rifle (five shots in 0.51"). This was fired in a real honest-to-God Mauser single shot action M/98 with a $5.00 Browning aircraft machine gun barrel and a B&L BALvar 24X scope with a **good** rear mount (at long last—a hand made job picked up at Perry from Hogue of Northeast, Pa.). The load was 43 gr. IMR 4895 and a Western 8½ military primer (what the Army chooses to call a Winchester 120).

In the .30-06, although a better rifle, I did not do so good, but on the other hand I have never been able to do real well with this weight bullet in the .30-06, so I was not surprised. The results in the .308 were so gratifying that I have started to make some real bench rest quality brass, of which the best I have been able to get my hands on in this or any other caliber is the Canadian service brass that we were privileged to shoot and collect at the Canadian National Matches last year. The brass is tough like the good old DEN 42, 43 and 44 .30-06 and in addition is so uniform that you think you were weighing bullets instead of cases.

I note that Forster-Appelt do not even advertise their new Power Case Trimmer in Precision Shooting (they do now—Ed.) but it is the answer to a maiden's dream. It is easy to set up and takes all of the drudgery out of handloading, as I contend that case trimming was the only part of hand-loading that had not been mechanized. The finished job, without deburring, would be perfectly acceptable for immediately loading, the length can be very carefully controlled and the entire operation is very easy to perform. Deburring now becomes the only slow process of the entire operation. (The electronic powder measure loads cases faster than you can seat bullets so that it is now possible to concentrate on shooting rather than loading.)

Forster-Appelt also have a primer pocket reamer that they only mention in their power case trimmer instructions, but I have been using one that Hank Forster made up for me about a year or more ago and it does a beautiful job of taking out the crimp of GI brass and does not enlarge the primer pocket, contrary to Hank's predictions.

As ever,
George Bjornstad
Chicago, Illinois

Dear Phil:

I was somewhat surprised to read in Ernest Stuhlschuter's column in the January issue of Precision Shooting, his view that it might be a good idea to take the return spring off the telescope tube and bring the tube back to position by hand, for I had no idea that a group as serious as the Bench Rest Boys were ever using recoil springs in the first place. There is no question that a spring will return a scope to battery, but a spring will **not** ensure that the rib will always bear on the same side of its mount, a factor to consider when seeking the last 1/10 minute of angle.

Many years ago Harry Pope, God rest his soul, taught me in returning the scope back to position by hand, to always **rotate** it so that the rib always came to rest against the same side of its mount, (and Pope, as you may recall, was not only the man who "invented" the rib for telescope sights, but a precision machinist, barrelmaker, and shooter as well).

For those addicted to the use of springs to consider, the effort required for the operation by hand is much less than, say, opening the bolt of the rifle, and once you've adopted this procedure, it becomes as much of a habit as closing the bolt or setting a set trigger before firing.

Sincerely,
Maurice E. Kaiser
Colonel, US Army

Dear Phil:

I was very much impressed with Roy Dunlap's article on .22 target rifles that appeared in the June 1958 issue of Precision Shooting. Roy's point that we need more reliable and less complicated target rifles is certainly well taken. There is, however, one field of shooting activity wherein an inexpensive, simple and reliable .22 rifle is desperately needed, and I am not referring to premium grade target arms.

For the last two years I have been chief instructor of our local junior rifle club, and I believe I have come in contact with just about every make and model of low priced .22 rifle now being produced by U. S. arms companies. Excluding occasional individual exceptions these rifles are, as a class, very sad specimens. Ostensibly designed as "first rifles" for boys and girls, these weapons alone have done a lot to discourage young people in competitive shooting. No serious adult target shooter would stay in competition if he were forced to use open sights and an 8 to 10 pound "continuous creep" trigger, but we expect our youngsters to do just that! Sure, you can correct the bedding, install sling keepers and mount decent sights, but try putting a decent trigger pull on these little gaspipes without destroying the safety factor! The worst part of it all is that there is no excuse for it!

What would be an ideal .22 rifle for beginners and junior shooters? First let's have a simple action, tubular steel receiver with barrel either pinned or threaded to it. A screw or plunger acting as a bolt stop. Bolt should cock on closing and the bolt handle should be long enough to get a good hold on. A simple safety locking the striker as on the Mauser would be desirable. Trigger mechanism similar to that used on Timney, Mashburn and other commercial triggers. Receiver should be drilled and tapped for commercial micrometer sights and barrel dovetailed for aperture front sights. The stock should be full in the forend and with a high, thick comb, to allow shaping to individual needs. Stock

"BRIGHT DIP" CLEANER FOR BRASS

By Allan S. Noyes

A couple of weeks ago I resurrected from the deep recesses of my heterogeneous store of pertinent and impertinent lore a "Bright Dip" acid bath for cleaning brass which I wanted to try out on some very soiled and stained cartridge cases which had come to me for reloading. This formula is not new nor exclusive and long has been used in the electroplating business to insure a really clean surface on the metal to be plated. It works like a charm so I thought it to be worth passing along to other reloaders who like to turn out a top-notch product.

The formula is enclosed. I store mine in a two quart screw top bottle with a rather wide mouth so it is always ready to use. In actual use I set the bottle in the kitchen sink, turn on the hot water so I can rinse each case as it comes from the acid, and go to it. I use a piece of haevy copper or brass wire about a foot long with one end turned up into a hook about an inch and a half long. Then I place the empty decapped case, open end down, on the hook and lower it into the acid bath and 'swish" it around for a fraction of a second, remove it and immediately flush it under the running hot water and that is it. When I say a fraction of a second, that's exactly what I mean, the acid works that fast!

Next, of course, the cases must be dried; in the oven or on a radiator if I am in a hurry or on a sunny window sill if there is no rush. I'm enclosing a sample cleaned case to show you the finished product and I think you will agree that it looks nice, like fresh store bought. (Editor comment—it does.)

The cost of the stuff is not great. I cannot tell you exactly what it is because I got my present batch of it for free from a chemist friend of mine who is in the laboratory of a nearby plant of the American Cyanimide Company. He told me that any reasonably well stocked chemical laboratory should be able to supply it for less than a dollar for the 1 liter quantity. If you figure on putting it together yourself be sure to follow directions in the matter of mixing it.

FORMULA FOR "BRIGHT DIP" FOR BRASS

Sulphuric Acid	Commercial Grade	1.84 sp. gr.	435 CC
Nitric Acid	Commercial Grade	1.38 sp. gr.	72 CC
Hydrochloric Acid	Commercial Grade	1.17 sp. gr.	2 CC
Water			491 CC
(A liter is approximately 1.06 U. S. liquid quarts.)			1000 CC or 1 liter

IMPORTANT!!! Use a glass or crockery vessel for this formula. **ALWAYS** put the water in the vessel first, then add the Sulphuric Acid, stirring slowly; allow this mixture to cool, then add the Nitric Acid and the Hydrochloric Acid in that order, again stirring slowly as mixture is completed. Allow to cool before using. **NEVER put water into any acid.**

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need not be of walnut; beech and birch work just as well and would be lower in cost. Sling swivels should be provided. The rifle would of course be single shot which would eliminate the need for an ejector. I believe that 2 stock screws should be used as this would allow more solid bedding of the receiver, and permit the barrel to be free floated. The barrel need not be over 24 inches long, similar to that on the 52 Sporter. I believe such a rifle could be made to retail under $40.00, or about half the price of our current "low priced" target rifles.

We have needed a good, reliable and inexpensive .22 target and training rifle for a very long time, and every time I read where some one of our arms companies has spent years of work and zillions of dollars perfecting an all-plastic .22 automatic, it makes me fighting mad! As long as our young people are induced into buying "gimmick" guns, our chances of again becoming a nation of riflemen are slim indeed!

Excuse me if I appear to be blowing off steam. Everyone may not agree with my ideas, but I'm sure that anyone experienced with junior shooting will admit that a vast number of young shooters would show immeasurable improvement if decent equipment was made available to them. Perhaps if enough of us older shooters could make ourselves heard, the arms companies might be persuaded to do the kids a favor and come out with something worth while for a change.

Jim Scoville
Osage City, Kansas

SMEAR TEST FOR SHOTSHELLS

By Kent Bellah

Shotshells exposed to a temperature of 132° F. or more will have some of the paraffin melted out of the paper tube to kill the primer or powder. After a short exposure shells may fire with a 20% velocity loss, noticed on the terminal end, but not by the shooter. Additional exposure to heat, such as storage near a tin roof, or in an automobile in the summer months, may result in such "slow" loads they make a mere Piff! when fired, or misfires result. You can test shells for power loss by the powder smear test.

Cut open a shell, pour the powder on a clean, white sheet of paper, press it hard with your clean thumb, and rotate your thumb. An oily smear, as pictured, indicates powder has absorbed wax or paraffin, and some of it is "dead." Few shells are stored under ideal conditions in a cool, dry place, with plenty of air circulation, where their estimated life is 10 years or more without deterioration. Best thing to do with old ammo is shoot it for practice pronto, and replace it with fresh fodder.

Revolver cartridges, even the kind marked "oil proof" or some similar name, are sensitive to an excess of gun oil or heat. Handloads with lubricated bullets

SHOOT! "Harvey Jugular Jacketed" & "Harvey Prot-X-Bore" Zinc Base Swaged Handgun Bullets.
Moulds, Swaging Dies 38, 357, 44 cal. & 45. .224 Kay-Chuk Handgun Conversions. "Harvey .429 Maglaska" Rifles. Send 25¢ in coin or stamps for information including loading tables for handgun calibres.
"R"
LAKEVILLE ARMS INC.
Lakeville, Conn.

Photo by Kent Bellah
Courtesy GUNS magazine

Smear test for shotshells

have a nasty habit of letting oil melt out of the lube. By our tests, Anderol Bullet Lube doesn't give this trouble even at excess temperature. It also has the advantage of being white, which is clean to handle, and it sizes clean and stays put.

Center fire rifle ammo with unlubricated bullets won't deteriorate from oil, unless cartridges in a loaded gun have a bath of excess oil. Some makes of primers give a terrific pressure increase with exposure to high temperature. One make increased pressure of 30-30 cartridges by 10,000 psi, with a velocity gain of only 200 fps. Our tests with CCI primers, both rifle and pistol, indicate a minimum increase in pressure, even after prolonged exposure to the high temperature and humidity of a Texas summer near the roof of an attic, then heating in an oven at 225° F., which is even hotter than it gets in Texas. The CCI primers still gave excellent ignition, with normal sensitivity. Our tests gave excellent results and accuracy after prolonged exposure in a deep freeze.

These primers are made with 8 ingredients varied to the needs of the various type primers, rather than using one compound in larger or smaller amounts. They are all a Lead Styphnate type, using other chemicals to help provide the

(Continued on Page Seventeen)

National Bench Rest Shooters Association, Inc.

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NBRSA MEMMBERSHIP DUES:

Individual annual dues $5.00 (includes magazine subscription for membership term). Associate member (wife or husband, son or daughter under 18 years of age, of member in good standing—no magazine) $2.50. Life membership (after January 1, 1959) $75.00. Annual club affiliation fee $10.00.

DR. J. W. CLARK

Dr. J. W. Clark, 44, passed away in his office in Durango, Colorado, on February 3, 1959. At the time of his death he was president of the Durango Rifle and Pistol Club.

He was an ardent sportsman. Since a heart attack in 1953 he has concentrated on his pistol and rifle shooting. In the past couple years he has built up two bench rest guns, one of which he shot in the Nationals at Tulsa last September. This was his first big bench rest match. His pride and joy was a gun which he built up in the past year. This gun, I believe, came in 8th in the return to battery tests run at Tulsa.

Most of his precision shooting knowledge came from reading everything he could find on the subject, especially from Precision Shooting. He worked up a lot of good ideas of his own such as the rests that he used on the above gun. He was truly a "nut" for precision. He had already made plans to attend the '59 Nationals and all other shoots he could manage. He was just amazed at the wonderful people he met at Tulsa and talked to me for hours about them. He could take the group picture made there and point out just about every man or woman there **by name** and tell me what equipment they shot! The English language cannot express our feelings at this time.

R. A. Gray

COMING BENCH REST MATCHES

MID-CONTINENT REGION

WICHITA, KANSAS: Apr. 5, May 25, July 3-4 (Kansas State Championships), Aug. 8 and Oct. 5; unrestricted bench rest and Varmint Rifle classes, Wichita Bench Rest Rifle Club, Bert Volker, Sec'y, 900 Peterson, Wichita, Kansas.

FLORISSANT, MISSOURI: May 17, July 19, Sept. 6, unrestricted bench rest rifles; June 14 and Aug. 16, Varmint Rifle only; all daytime matches; Nine Ring Sportsman's Club, Alfred W. Walter, Vice President, 1925 Raft Dr., St. Louis 14, Missouri.

ST. LOUIS, MISSOURI: Unrestricted bench rifles—May 10, June 7 (Missouri State Championship), Aug. 9. Varmint and Sporter rifles—Apr. 19, July 12, Sept. 13. Bench Rest Rifle Club of St. Louis, James R. Ernst, Sec'y, 2230 Ferncliff, Kirkwood, Missouri.

TULSA, OKLAHOMA: Registered shoots—June 20-21, Sept. 5-6 (Regional Shoot). Unregistered shoots—Apr. 12, May 10, July 25, Aug. 15. Tulsa Bench Rest Rifle Club, E. A. Anderson, Sec'y, 3604 South Toledo, Tulsa, Okla.

FOR THE GOOD OF ALL

Irven M. Mohnkern
President, NBRSA

Last year a drastic change in rules was deemed advisable and just as soon as possible. The bench rest game being a democratic game, something had to be done for its survival.

Most competitors must by this time realize that what is good for them must also be for the good of the game.

The real hot shots and top shooters could continue shooting only if there remained an organization which promoted bench rest shooting. In other words, in the long run what is good for all the shooters is also for the benefit of the top shooters.

I will agree and I think it should be so that the top shooters have more competition from the average shooter and I firmly believe the new rules will do just what the average shooter wants done.

The new rules are not a cure-all by any means. Progress and the imaginative initiative by our top mechanics will, as time goes on, force changes upon the organization rules for the survival of the bench rest game itself. Whether we realize it or not, our rule troubles were caused by our advancement in accurate rifles and their components. I predict right now that as our accuracy increases in the Varmint and Sporter classes, we are going to have rule changes.

All in all, our game is changing along with this fast moving world and our methods and rules will keep changing, which is as it should be. This is the price we are bound to pay for progress and progress has been made in accuracy which no one can deny.

This may sound absurd at this time but in the rocket age who knows but what a small or large caliber rifle bullet may some day be shot and guided to its target as a miniature rocket. This opens a new field of thought for some of us but I am sure that we all have experienced the thrill of wanting to put just one more shot into a real tight group which we had going at some time or another. A guided fifth or tenth shot would have been the ultimate in accuracy for many of us.

The development of such an electronic rifle instead of killing off our group will give us years of pleasure in developing such a gadget and will call for rule changes as it develops.

I hope you accept the suggestions in the right spirit and that future gadget makers will have a real field day.

Already the heavy unlimited rifle class would permit a real start for such members who would care to experiment on such guided gadgets. The field is wide open and your only restriction is that which you may yourself impose upon yourself.

Since the health of this organization is dependent upon the average shooter and the top shooter working hand-in-hand it is imperative that different classifications be made available to all types of competitors and in classes to his own liking.

WEST COAST POSTAL MATCHES

John B. Sweany, 187-A Silverado Trail, Calistoga, California, is attempting to promote a postal, Varmint Rifle, bench rest competitive program for shooters in the NBRSA Northwest and Southwest Regions.

The purpose of this program is to provide the opportunity for widely scattered individual shooters to conveniently fire a set of match targets on their home range for comparative results with other shooters firing under as near similar conditions as possible in postal competition. A shooter registering for one of these matches will be supplied a set of registered match targets which he will fire on his own range at any time within a specified 15 or 20 day period and return to the match manager for measuring. We believe the results ranking will be on aggregate average but probably there will be a ranking of a few of the smallest groups as well. Shooting to be with rifles and scopes having a combined weight not exceeding 13 pounds, of any caliber and scopes of any power, at 100 yards range, from bench rest.

As we understand it, there will be a very nominal registration fee to merely cover costs of targets, postage and incidental expense for the competition. There will be no prizes, since the firing cannot be supervised, but as we understand it each contestant would receive a bulletin listing complete results for all shooters.

This seems like a very desirable program and any of you people in the West who may be interested may get more complete information from John B. Sweany, 187-A Silverado Trail, Calistoga, California.

The first competition in this program is being fired between March 1 and 15 but other competitions are planned to follow, so, if interested you had better find out more about them.

PHT

ARIZONA BENCHREST SHOOTERS ASSOCIATION

On February 22, 1959 a group of benchrest shooters met and organized the Arizona Benchrest Shooters Association. It is their aim to promote more and better organized matches in Arizona. Officers elected were Frank Menucci, Box 1354, Globe, Ariz., President; Jim Wilkerson, The Rifle Ranch, Prescott, Ariz., Secretary-Treasurer; and "Apache" Jack Williams, 304 W. Second St., Casa Grande, Ariz., Range Officer. All Arizona riflemen interested in bench rest shooting are urged to contact one of the officers for full information about this new organization and how to become a member of it.

BEGINNERS' CORNER

By Robert F. Stinehour

It has long been my opinion that many would-be rest shooters shy away from the game because they believe it to be a lot more expensive than it really is. Walking down the firing line and seeing some of the fancy rifles and ornate resting systems, it's easy to see how one could get this impression. In the following paragraphs I will try to show how little can be spent for a good set-up.

Actually, a good outfit costs far less than a good complete smallbore outfit. My **best** rifle, scope, rest and reloading equipment used at matches, stand me just about $320. This is with everything figured at the long price. Of course one must do their own stocking and make their own rest to have a rig at this price.

Since bench shooting is very much a do-it-yourself game, I believe most anyone can do a passable job on these two items, with the proper patience. The big majority of bench competitors do their own stocking, and most of those who shoot fine custom rifles made by others are capable of doing their own stocking. I've seen many excellent bedding jobs on a shooter's first try at stocking.

To break down the cost of my rig, it goes thus. Stainless barrel on 722 Rem. action $145. I use the 722 entirely because dollar for dollar it can't be beat. I would like to have one of the many fine, heavy custom actions, but I don't think anyone has proven that they are better than the 722. Other good features of the 722 are their excellent trigger and fast lock time.

Scope is a Unertl 2 inch 20X, $115. Very often there are excellent used scopes available for $80 to $85. One of these buys would cut costs that much more.

A first class stock blank can be had for not more than $20.

My rest and sandbag can be duplicated for as little as $5. While it is not a "return to battery" setup (which I am agin), it works well for me. Also it gives one pleasure to know they helped the gun a little, to get a good group or aggregate.

This leaves $35 for my loading kit. It sounds cheap for a loading outfit but that's about what it is worth. One does not need a $100 press to load quality ammo.

It is not necessary to go to the expense of bullet swaging equipment, as there are many shooters who sell top quality bullets.

Most shooters, when first bitten by the bench rest bug (myself included), are in such a hurry to get going that they buy the first thing that comes along. With a little patience a top flight outfit can be had for far less money. Where possible I urge beginners to talk to as many rest shooters as possible before buying something that they will find later was not what they wanted.

The rifle illustrated cost me less than $90 total. 722 action $50, stock blank $20. The barrel was given to me by Joe Marinko as a discard, and cost me $15 to rechamber, cut and crown. While it is not good enough to win a first place at a big match, it is capable of placing well in an aggregate. (Editor's note: Bob sent along a target with a .443 inch 10-shot group at 100 yards fired with this rifle on a windy winter day.)

The barrel I used to win the True Trophy at Johnstown, N. Y. last year was also one of Joe's discards. There are many such good barrels in the scrap heap.

The moderate cost bench rest rifle and accessories, including loading equipment. The extension shield from the front of the scope is to prevent heat waves off the barrel from rising into the line of sight and interfering with precise aiming.

COMPUTING BENCH REST AGGREGATES

Dear Phil:

Sometime, when you have a spare moment, I would appreciate it if you would explain to me the manner in which m.o.a. and average and NMC agg. are computed. There may be other terms which I am leaving out and if there are, please include them also. I know it will seem impossible to you that anyone who has been to a couple Bench Rest shoots would not understand this but I confess I do not, and I have asked others who do not, but I am sure if I asked any of the headliners in the sport, I would get an answer. Perhaps it is because I do not know what National Match Course means, and I guess I do not know what minute of angle means although I thought I did. We hold small informal Sunday shoots here over my 100 yard and 200 yard range. I have a Sweany rule so there will be no arguments. We declare our winners the simple way; smallest group of each match. With the information I am seeking from you we might go into it a little more elaborate.

In 5 ten shot matches at 100 yards Paul Gottschall shoots as follows: .560, .510, .968, .385, .663. What is his average for the 5 matches? What is his m.o.a.? In 5 ten shot matches at 200 yards he shoots as follows: 1.054, 1.078, 1.612, 1.078, .878. What is his average? What is his M.O.A.? What is his NMC agg.?

Does the National Match Course ALWAYS consist of the same number of matches at the 100 and 200 yard ranges? I have seen a great many educational and instructional articles in your magazine but I never recall anything on the computing and keeping of records. Anything you can tell me will be of great help.

Very truly yours,
H. Lynn Hunt
Rock Stream, N. Y.

Mr. H. Lynn Hunt
Rock Stream, N. Y.
Dear Lynn:

There may be others as confused as you are in regard to published statistics of bench rest shooting so I will publish this answer.

The National Match Course in bench rest rifle competitions consists of five 10-shot targets shot at 100 yards range and five 10-shot targets fired at 200 yards. Group measurements are the distance center-to-center between the widest bullet holes in the individual 10-shot group. As you know, the Sweany Reticle Rule used for measuring groups shot from bench rest is calibrated to read directly that center-to-center measurement. When measuring groups with a scale, most accurate results are obtained by measuring from **cutside** to **outside** of widest bullet holes and subtracting from this measurement the diameter of **the bullet print on the paper.** If you will as accurately as you can measure a **bullet print** on good target paper or tag-board you will find that it is slightly smaller than the diameter of the bullet that made the hole. The bullet print is, of course, the outside diameter of the darkened ring around the actual bullet hole.

A change of **sight line** of one minute of angle will change the point of impact of the bullet very nearly one inch for each 100 yards of range—one inch at 100 yards, 2 inches at 200 yards, etc. In common usage we consider that one minute of angle equals one inch for 100 yards range, two inches for 200 yards range and one additional inch for each additional 100 yards range. Thus, we would term a group which measured one inch between centers of widest bullet holes, when fired at 100 yards, a one minute of angle group. A group fired at 200 yards which measured two inches between centers of widest bullet holes would also be termed a one minute of angle group. The decimal part of a minute of angle corresponds to the decimal part of an inch for 100 yards range.

To find the so-called aggregates in the example you have given we would proceed thus: To find the 100 yard aggregate we would add the measurement in inches of the five 10-shot groups, which would give us a total figure of 3.086. We would then divide that figure by 5 to get the **average** group size, which would be .6172 inch, and that would be called a .6172 **minute of angle** (m.o.a.) aggregate at 100 yards. (Incidentally, Paul Gottschall wouldn't be very proud of that aggregate except in a real gale of wind.)

To find the 200 yard aggregate we would first add the five group measurements in inches, which would give us the figure 5.700. We would then divide that by 5 to get the **average** group size in inches, which would be 1.40 inch. Since one minute of angle at 200 yards equals two inches we would divide 1.140 by 2, which would give us a .570 minute of

(Continued on Page Twelve)

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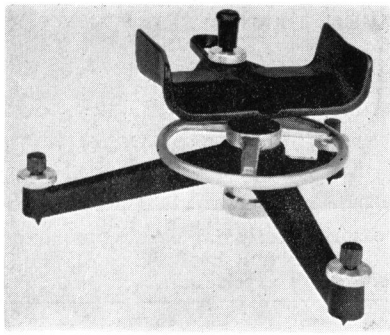

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Computing Bench Rest Aggregates

(Continued from Page Eleven)

angle aggregate at 200 yards. In common usage we would divide the figure 5.700 by 10 to get the minute of angle aggregate or, simplest of all, merely move the decimal point one figure to the left (this for 200 yards only).

The National Match Course aggregate is the **minute of angle average** of all ten groups, so, to find that we would add the minute of angle aggregates of the two ranges, which would give us the figure 1.1872, and divide that by 2, which would give us the figure .5936, this being the minute of angle average for the ten groups (five at each range) and would be the National Match Course aggregate for the group measurement figures you have given. (It wouldn't take too windy a day to make Paul Gottschall quite content with that 200 yard aggregate and the resulting National Match Course aggregate.)

The National Match Course for bench rest shooting does always consist of the five 10-shot targets (matches) at 100 yards and five 10-shot targets at 200 yards.

The National Bench Rest Shooters Association, Inc. in addition recognizes an aggregate for five 5-shot matches at 100 yards, for five 5-shot matches at 200 yards, and a combined two range aggregate of the five 5-shot matches (targets) at both ranges. These aggregates are computed exactly the same as the National Match Course aggregates but, of course, the 5-shot aggregates normally are a little smaller than for the 10-shot target aggregates.

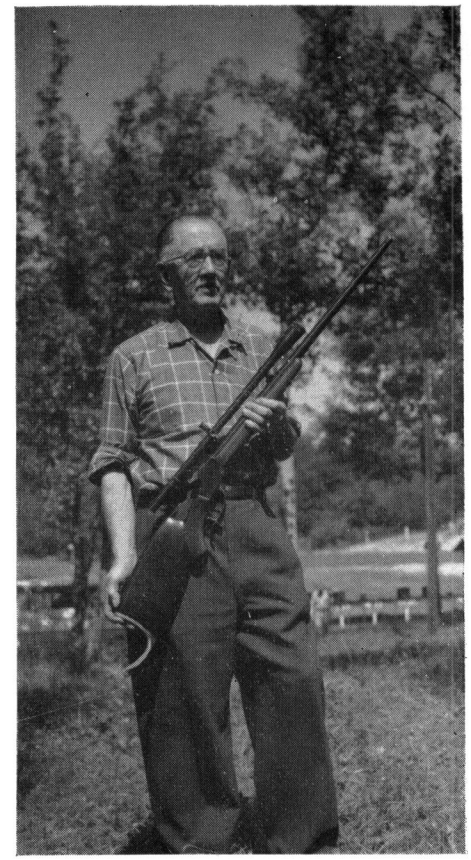
I think the above should clear up any confusion you may have had and I think that you will find that ranking by aggregate, as well as single match groups, will add to the interest of your shoots. Do let me know if it does or does not work out that way.

Sincerely yours,
Phil Teachout

APPRECIATION

This month we offer a bit of re-appreciation to a man who has contributed much to rifle precision and whose only reward has been the satisfaction from having aided others in gaining greater enjoyment from their sport and hobby. We doff our hat again to Harvey Donaldson of Fultonville, New York, originator of the .219 Donaldson cartridge, promoter of the present organized bench rest rifle shooting program, friend and advisor to a wide circle of accuracy minded riflemen.

Harvey Donaldson is one of the all too few remaining shooters who started their careers of shooting and rifle experimenting in the heyday of the fine single shot black powder rifles and the famous riflemakers, shooters and experimenters



Harvey Donaldson

of that era. Harvey's voluminous files of correspondence contain a stupendous fund of firearms lore covering a span of close to three quarters of a century which should be preserved as an historical record for shooting posterity, and we hope that it will be.

We have recently read articles in hunting and shooting periodicals that would give the impression that varmint shooting as a sport is a quite recent innovation. Nothing could be further from the truth in the Mohawk Valley of New York State where Harvey Donaldson has lived and is living a long, good life. It was woodchuck hunting in this region that brought about the excellent small caliber black powder cartridges, designed to give fine accuracy with flatter trajectory to aid sure hitting on these small targets at longer unknown ranges.

Harvey Donaldson has never been any "stand-patter" and was one of the earliest experimenters with smokeless powder, small caliber, high velocity cartridges to give accuracy capable of making hits on small varmints at ever longer ranges. His improvements to the original .22 Lovell cartridge resulted in the R-2 Lovell which is still highly regarded by many as a varmint cartridge, especially for single shot actions.

Harvey's most famous cartridge "baby" is of course the .219 Donaldson. He originally named that cartridge "The Wasp" but with the proven success of the cartridge a manufacturing gunsmith copyrighted the "Wasp" name, which is the reason that cartridge goes by the label .219 Don or .219 Donaldson. All of Harvey Donaldson's contributions to rifle and cartridge accuracy have been made freely available to the shooting fraternity without any financial return to himself. The record of accomplishment of the .219 Donaldson cartridge is too well known to require more space here.

As to "Social Security"—Harvey is truly "social" and the "security" he's tak-

ing care of himself. He is regularly actively engaged in design and lay-out work in a home-town machine shop and, according to his own telling, he's a Hellion on Wheels with an automobile. He's a good story teller, and like any such, we suspect he may exaggerate just a wee bit at times. However that may be, we again salute with respect and appreciation the friend of all shooters and good sportsmen—Harvey Donaldson.

PHT

THE INFORMATION BENCH

The Information Bench service is available to all Precision SHOOTING readers. With your questions, send a large, stamped, self addressed return envelope for a reply. Selected questions and answers, covering as wide a variety of interests as possible, will be published in these columns. Address your questions to the following people.

Bench rest, varmint and hunting rifles, accessories, handloading, components and shooting methods—**M. H. Walker, THE INFORMATION BENCH, RFD #1, Box 118, Mohawk, N. Y.**

NRA and Free target rifles and shooting—**Roy F. Dunlap, 2319 Ft. Lowell Rd., Tucson, Arizona.**

Sporting handguns and loading—**Kent Bellah, Saint Jo, Texas.**

American Single Shot Rifles—**Rupert S. Hill, 325 James St., Elkhart, Indiana.**

(NOTE: Rupert S. Hill, who has consented to answer questions on American Single Shot Rifles, has had a great deal of personal experience with most of the rifle types and popular cartridges for the fine single shot rifles of the black powder era. He has notebooks full of detailed loading dope which he has gained from personal experience in shooting these rifles. He is a shooting person that we are mighty happy to have behind THE INFORMATION BENCH. P. H. T.)

Question: I've enjoyed reading your comments in Precision Shooting, and profited therefrom also. I would appreciate your suggestions on the most accurate load for the .244 standard factory case and rifle with the 75 gr. bullet for match shooting. I used the factory rifle and handload of 40 gr. 4064 with 75 gr. Sierra last year at San Angelo bench matches, sporter division, to place second. I want to beat that this year with the same rifle. I'm afraid, however, if I run too many test loads through my barrel in trying for the most accurate combination, that I'll skim the cream, accuracy wise, in testing loads. Can you help me with a short cut, by suggesting the best loads for match shooting? Also, is there any particular tune-up other than barrel floating, enlarging action screw holes, and resetting trigger pull? Does the .222 Magnum offer the bench rester anything over the standard .222 in accuracy? H. B. Regan, Big Spring, Texas.

Answer: You have probably selected a load for your .244 as good as could be found for it. The only suggestion I would have would be to try 3031 with the 75 grain bullet with loads up to approximately 38 grains. The faster powders sometimes burn enough cleaner to give improved accuracy under certain conditions. Some of the bench rest shooters who are using the .244 got the best results with 36½ to 37 grains. This was in heavy rifles. You may find your sporter requires slightly more powder.

If you are getting ¾ths minute of angle or better it is unlikely that you will be able to improve this to any great extent in a light rifle. When I say ¾ths minute accuracy I mean an average of at least four or five 5-shot groups. So many people quote the accuracy of their rifles using the best groups they have fired which of course is ridiculous.

Sometimes the accuracy can be improved by touching up of the fit between the receiver and the stock. These should fit snugly together without binding and the front guard screw should pull the receiver into place completely. The recoil shoulder should have a good bearing and not be pulled away from its seat by the guard screws. This can be checked by standing the rifle on its butt on a bench while you alternately tighten and loosen the front guard screw at the same time placing your fingers over the action and stock attempting to feel movement. If the recoil shoulder is not seated properly the front guard screw when tightened will move the action forward from the stock. The rear guard screw should not spring the receiver tang when it is tightened. This you can check by either appearance or feel. The front guard screw of course should be in place and tight when this check is made.

There is not enough experience with the .222 Magnum yet to indicate whether or not it is better than the standard .222 at bench rest. It is likely that we will know after this season. M. H. Walker

Question: In the November issue of Precision Shooting I noticed your answer relative to the new 6mm International case, the answer dealing with factory rifles, and bench rest accuracy requirements. I presently have a target weight rifle, Rem. 722 action, Douglas Premium stainless steel 28° X ⅞" that averages 1.025" at 200 yards, 5 shot groups. This rig just approaches your ⅝ minute of angle standard that you mentioned in Precision Shooting. I do all my shooting at the Blue Trial Range in Middlefield, Conn., which is noted for its windy environment. However, my .240 Cobra shooting 85 grain Sierra bullets in front of 43 grains of 4895 seems to handle the wind situation pretty well. My .222 Rem. does not stand up in the wind at all but groups well on calm days.

It seems that Bob Wallack, who chambered and fitted my barrel, is no longer gunsmithing and I wish you would give me the names and addresses of a few smiths who can do excellent barrel work. Reading through the American Rifleman I find several listed gunsmiths but I do not know nor have I seen examples of their work.

I want a Hart barrel turned down to .75" muzzle diameter, chambered for the .244 Remington with the bullet seat cut deeper by about 5/16" over the regular chambering so I can seat 100 grain bullets to the same overall length as the 85 grain without forcing the bullet back into the shoulder of the case. With my present .240 Cobra I have a deep cut bullet seat and I get good accuracy with 100 grain bullets at top velocity to about 400 yards. With the 12" twist past 400 yards and at 600 yards they yaw and I get keyholes because of a fall off in rotational velocity.

James R. Lyons, Bloomfield, N. J.

Answer: In order to get adequate stability at 500 yards with the 1-12" twist in the 6 mm it is necessary to have top quality bullets no longer than I inch. It is just possible to get 100 grain bullets 1 inch long with an ogive of approximately 6S. The 100 grain pointed Sierra is slightly over 1 inch as you probably know.

I have had experience with the gunsmith's work of barrel maker Clyde Hart, R. F. D. #2, LaFayette, N. Y., and William E. Cotter, 159 Church Street, Little Falls, N. Y. M. H. Walker

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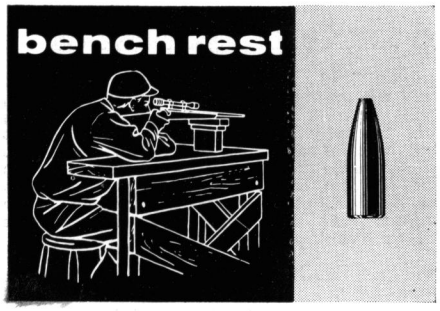

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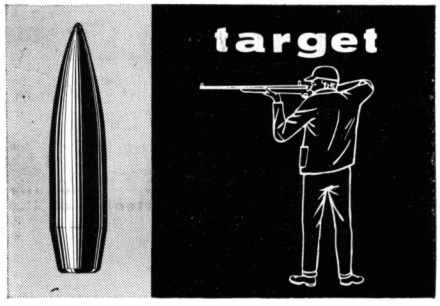

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Dear Phil:

You will probably receive a series of reports of the Winter Meeting at Elmira but it will take much good reporting to indicate the spirit of that meeting. As you will recall, last year's meeting was rather a hectic one, accompanied by harsh words, hot tempers and hard feelings, but this year's meeting was entirely different. There were differences of opinions, to be sure, but nobody there thought we would solve all the conflicting problems that exist in our organization or at our matches; however, the spirit of those who were present was truly cooperaitve and the attitude during the entire meeting was good. If that same spirit can carry through the year, and on to the firing line, we will indeed have a good season.

Some shooters felt that the new rest rules or the new rules describing the rifle classifications were not exact enough to avoid some of the confusion that existed in the past; for instance, how hard can a sand bag be and still be soft. As suggestions were being made to appease some of those who had questions about them, Ed McNally made a comment that I think we all should bear in mind and live by in every aspect of the game; namely, that a shooter himself knows whether or not his piece of equipment is legal, and usually clearly realizes when he is violating the rules of the game or good sportsmanship in general.

I have been attending Winter Meetings since the first one at Elmira but never have I recalled the spontaneous applause as that accorded Clair Taylor at the morning session. Clair wanted to take the opportunity to explain why he and Don had decided to withdraw the Taylor and Robbins trophy from competition. The basic reason for withdrawing it was the failure of some of the Club people in the past to award it on the rules originally specified by Taylor and Robbins. When a trophy is given, it would be a blind man indeed who could not see the justice of allowing the donor to state under what conditions it might be awarded. As trophies go on through the years, there might be reasons to ask the donor to change the specifications for awarding it, but certainly the Club should not take it upon themselves to arbitrarily change the rules. Clair would be the first one to permit such a change if he thought it was for the good of the game, and we who know him well recognize that fact. He was further disturbed by the very obvious lack of care accorded to the trophy. The sequence of engraving had not been kept up, and he was even more disturbed by the obvious abuse the trophy had taken which seemed to be above and beyond the line of ordinary wear and tear. In some instances it must have been used for a container for sharp edged and heavy objects which from the inside of the cup, had scored and dented it beyond the state of perfect restoration, even by a competent silversmith. I made the recommendation that regional or national funds be used for restoration of that and other highly prized trophies, and in general, the recommendation was well accepted. Soon after, Clair stood up, and in a manner that has made us all so fond of him, spontaneously reoffered the trophy, and this was when the applause accorded him established, to my memory, a new record high.

Later discussion on trophies indicated that there was a need for new ones to be presented to second and third places, in some of the shoots, including the National. I have felt that soliciting trophies from local concerns or interested persons for local shoots could well be accomplished without going to the begging stage. Larger concerns making products used by the shooters might establish trophies for second or third positions or for some particular type of match in both Regional and National shoots. The good-will engendered could be well worth while to the donor. Again I say, as I have before, that it is a duty which should not be overlooked, to write and thank any donor of any prize or trophy won by a competitor.

The above discussion brought us to a subject that probably exceeded the others in interest during the two days of the meeting. As I believe most of you realize, we lost among other good shooters last year, one who was known and highly regarded by all of us. His character was as firmly developed as his shooting technique, and his competitive spirit was as keen as his wit. Clyde and Bob Hart found enthusiastic response when they announced that they wished to offer a Memorial Trophy for Charlie Hart. I have often said a strong strain in their father's blood carried through to his sons and grandsons and gave them the love of shooting and the kind of blood that will make our game endure if we intelligently guard it against harm. There are some very simple basic rules for this new trophy. No new statistics need be developed. Al Abramow agreed to keep the records as submitted by the team captains, who in turn will extract them from the normal statistics supplied at the match, or after. The idea of teams is another basic one in the rules, which means both cooperation and competition and I predict that the entire level of the shooting standards and technique will be greatly improved next year and the following ones because of the cooperation that will occur. Every area will participate, and of course, some of them will have a slight advantage, especially if they are made up of a number of long experience and of a high level of ability.

Another marked example of the spirit of the Winter Meeting came at this point. A suggestion was made and well thought of, and practically unanimously accepted to the effect that it might be better for the game if a limit of two members to each team who had ever been in the Top Twenty in the National Matches, be allowed. This restriction was considered important and Clyde and Bob agreed to include it in the rules, when Walt Astles got to his feet and made one of the little suggestions that I have so often heard him make before, to the effect that it would be better to make this restriction as a suggestion rather

than a rule. Walt contends we already have too many "must" rules and that there is a natural resentment among bench rest shooters, perhaps even more than among other people, to be herded around and into line, and that the suggestion for limiting each team to two of the top twenty shooters should be adequae. It should be, and most of us agreed on it, and I know that I shall be both disappointed and very surprised if there are any team captains who violate this rule.

One of the nice things about this column is the friendships that I have built up with shooters from coast to coast. Some of them write to mention that they like the column, some ask a little question that is simple to answer but more often there is a lot of correspondence entailed in answering some of their problems. I often get a second letter of appreciation and, little by little, the friendship is built up that is very dear to me. At this point, I am thinking of a fellow who made quite an impression on Merrie Stuhlschuter and me, through his letters. As you know, there are occasional people who can put that rare spark into their correspondence that makes the recipient see them as clearly as though they were standing before him. One of these chaps was Dr. J. W. Clark of Durango, Colorado, who less than two years ago wrote telling me of some of his problems and also some of his progress in bench rest shooting. He did not seem over confident about meeting and defeating some of the country's good shooters, but, by golly, that is exactly what he did in some of the first few matches that he went into. I encouraged him to make these trips, and to the Nationals because as I say to others from time to time that the old Chinese Proverb that one picture is worth a thousand words is akin to my contention that one trip as a competitor to a big regional match is worth a thousand letters or magazine articles. There is nothing that equals attending the matches. The enthusiasm is there, the good fellowship and cooperation so characteristic of the bench rest shooters immediately forges to the front, and that is just exactly how Dr. Clark told me he found things. I had expected to meet him at Tulsa and some of those chaps who did attend told me of the good impression he made on them. He in turn told me and the members of his shooting clan about the favorable impression that was made on him. You can see, therefore, how hard it was for me to accept the bad news which was relayed to me by one of his shooting pals—while I was waiting for an answer from Dr. Clark—that he had suddenly passed away early in Feburary, in his office. It was rough to lose a guy like that—for his family, for his friends, and certainly he will be a loss to the roster of the bench rest shooters. He has undoubtedly planted a seed of enthusiasm in the Durango area, and I sincerely hope that it grows. Well planted seeds among a few enthusiastic shooters is all that is necessary to make many clubs as active and qualified, as competitive and cooperative as is the Reed's Run Club. It takes work, of course, but "Brownie" and Marie and the entire group of shooters laugh off work, and the result is a happy club whose members do well wherever they go, and bring to them the esteem which they so rightly deserve.

A good job most generally does bring results as indicated by the fact that the Taylor and Robbins business last year was a full 17% ahead of their best year and last year was somewhat of a depression period. Clair didn't tell me that as a boast nor perhaps expected that I would even absorb it, but merely recited it in conversation about a gun for which I am waiting. This rifle is a new Sporter in the 7 m/m caliber that I am so fond of, but with a chamber for a shortened 300 Magnum case. They form these cases hydraulically so that one need not wear out the barrel fire sizing and I could report the story of its tremendous velocity and penetration in steel; however, of more interest to accuracy fans is the very tightness of the groups which Clair and Don are shooting. One of them for five shots at 100 yds. is .375" and it shoots so flat that it is less than 3¼" high at 200 yds. when it is targeted for 300 meters.

I just heard the story of how Don's wife got her deer with one of those rifles. She, Don and Clair were in the area where they might possbily find one. Don and Clair had both shot theirs and later they came around a bend in the road to find several cars at the side of the road and their occupants looking across a valley to a deer which was standing a mighty long way off. One of the local people recognized them and asked about one of the long range rifles they had been making. Clair allowed he had one with him, and then this fellow said that the day before the group had shot about fifty times at a deer in the same location and had not been able to touch it. Clair did not throw much fear into the chap when he told him that although he had the rifle, only Irene could take a shot because their tickets were filled. Irene walked away a little distance to a convenient location for prone shooting, and Clair took a look at the distance and wind, and guessed how much Kentucky windage would be needed. By that time there was quite a gallery, and the deer had given no indication that it considered itself in danger. Neither did some of the bystanders consider the deer's position to be very hazardous because Clair overheard "What's the use of that man giving her all that information—I never saw a woman who could shoot very well anyway." I can well imagine how red that fellow's face was when after Irene touched off the trigger, there was a resounding thud, and the deer dropped. I can well imagine, too, the enthusiasm of the two youths who volunteered to run across the valley and up into the thicket to bring back the deer. Only youth could be that enthusiastic, and energetic. The measured distance with a steel tape before plenty of witnesses was 616

(Continued on Page Nineteen)

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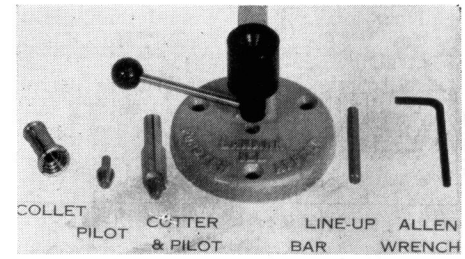

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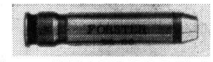

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4. First and Second places, 300 meters, Du Bois, Pa., 1957, Clair Taylor and Don Robbins.
5. National Match Course, Du Bois, Pa., 1957, 1st, 3rd, 6th, 7th places.
6. National Match 10-shot 100 yd. aggregate, Augusta, O. Al Creighton, .3105".
7. National Bench Rest Championship, Johnstown, New York, 1955, Sam Clark, Jr.
8. 10 Shot 200 yard WORLD RECORD, Du Bois, Pa., 1954, Sam Clark, Jr. Score, or Group, .5276"
9. 10 Shot 200 yard WORLD RECORD, Du Bois, Pa., 1956, H. L. Culver (Present record) Group size .4016"
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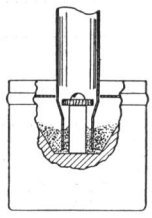

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LOOSE JACKETS OR GAS CHECKS

By Kent Bellah

Inertia bullet pullers have a nasty habit of loosening cores in some soft point jacketed bullets, and such bullets simply won't shoot. Best deal to salvage bullets is to use a collet type puller, such as made by Forster, R. C. B. S. and other makers. I had a supply of bullets that definitely had loose cores when pulled with an inertia puller. To see if they were harmed if pulled with a collet puller, I loaded 100 new bullets, pulled half that number with an R. C. B. S. collet puller, and resized the case necks before reloading. All were fired for groups in an accurate .222 Sako sporter, with 8x Leopold glass, Buehler mount.

Each set of five 10-shot groups were so nearly the same that I couldn't detect any difference in accuracy, indicating that such bullets are entirely satisfactory for hunting. The pulled bullets had a slight mark from being gripped by the case neck. I'm not recommending any pulled bullets for an important match without further testing, but they will certainly sack up varmints.

Inertia pullers are often used on handgun loads. One person pulled some .44's that were gas checked. Evidently a gas check was left in the case, which is quite common. It held part of the original powder charge, and when the cases were reloaded the resulting overload damaged a fine revolver. He pulled all the bullets in that particular batch of loads and discovered another gas check in one of the cases.

Handgun bullets with conventional gas checks have been a rather controversial subject. Some writers claim they are inferior to plain base types, that they are inaccurate, and otherwise give them a bad reputation. I personally don't agree, and I think a gas check base is superior to a plain base in either rifle or handgun, provided the base stays on the projectile in flight.

Gun writers who have had unsatisfactory results with gas checks may have had inferior castings, which are more common than some people think, especially in small test batches. But chances are the checks were shedding in flight, the bore or the case. Conventional checks very often shed in flight, and not uniformly. The trouble is worse in a revolver, where bullets do not always enter a bore in perfect alignment, a condition more common than some handgunners think. Fast pistol powders wham the whey out of a bullet base, and somewhere between the actual case chamber and rifling, which means in the cylinder and barrel throat, base pressure may cause checks to loosen.

I believe checks that take the rifling perfectly and ride the bullet to the muzzle have a pretty good chance of blowing off as they leave the muzzle. Fast powder in a short tube, especially at Hi-V, puts terrific pressure on the base at the muzzle, and the muzzle blast is considerable. The only 100% cure with conventional checks is to crimp them on with Harvey Cannelure Dies, which I think are badly needed in rifle calibers, as well as the .38-357 and .44 handgun calibers currently available. Some checks have been made with a tiny flange that is supposed to crimp them on bullets when seated, and sized.

The idea is real good, but the checks are not always a good fit on some bullets, which can make ammo uniformly bad. I'd rather risk plain wall checks that are a good fit. Lads casting (or swaging) Harvey Jugular bullets that use the short jackets (the type I prefer) have had trouble with jacket shedding. I certainly advise running these bullets through the Cannelure Dies, which is a very fast operation.

Prot-X-bore cast bullets have the zinc washer base, that acts as both a perfect gas check and lubricant, cast as an integral part of the bullet. These are not going to come off or loosen in flight; in fact base pressure merely tightens the lead "rivet" that holds the washer on. These have an accuracy advantage as the hard zinc base is equal to a machined metal base, and the edges are uniform. The vital base and edges are more uniform than any conventional gas check. Perhaps some target shooters have not used these bullets, thinking the bases make them slower to cast and slightly more expensive.

Granted, they are slightly slower to cast, but as bullets are ready to shoot as they fall from the mould, the time saved in sizing and lubricating is eliminated. As for cost, zinc bases on the unalloyed lead bullets are no higher than the tin used in target alloys, generally 10% or so, plus the cost of lube. I think Prot-X-bores have much to recommend them in accuracy. The cast types in Shoot From Mould (S. F. M.) are just about the equal of carefully swaged bullets of the same design. Or to say it different, there is nothing BETTER than swaged bullets, although sorted castings are just about their equal in the unalloyed lead, zinc base type.

My article "The Most Deadly Handgun Loads" in the current (1959) GUN DIGEST gives detailed dope on these bullets, and the Jugulars. A very fine Prot-X-bore target load with the .38 Special 139 gr. pill is 3.2 to 3.4 grs Bullseye ignited with CCI primers. Remington caps can be substituted with good results. The heavier charge works better for me. These can be accurately weighed by using the Electric Dripper, which is very near as fast as throwing charges from a measure, and few measures handle sticky Bullseye with good accuracy Ted Smith's Electric Dripper puts precision loading on a production basis for $6.50.

Smear Test For Shotshells

(Continued from Page Nine)

proper heat and flame. Stabilizers to control the heat and flame are carefully worked out to extremely fine quantities for best results for each individual type primer. These are T. N. T., Lead Peroxide, Nitro Cellulose, Tetrazine, etc.

The fact that all ingredients are combustible may account for long barrel life. Dick Speer, president of Cascade Cartridge, Inc., has a 30-06 hunting grade rifle that has fired over 60,000 hot loads, using CCI primers, and it still has hunting accuracy! The lab loads were 150 gr. bullets ahead of 50 grains 4895. No doubt the bore would have been badly chewed up in a few thousand rounds with primers that contained ground glass, or other non-combustible material.

The only job of a primer is to ignite the propellant. The less gas it makes the better, and a more uniform velocity spread could be obtained if the primer made no gas at all. This is impossible.

The CCI mixtures are progressive burning, as compared to an explosion, and they form a minimum amount of gas for a more uniform velocity spread. Dick tells me this is caused by inducing heat to the powder in flaming particles that actually burn with the powder, and give a more uniform pressure build up. Some primers will squirt all flame and gas through the flash hole. Dick also tells me, and our tests prove it, that CCI primers are extremely uniform from lot to lot. Commercial ammo makers can adjust their loads to match different lots of primers, but handloaders can not. CCI primers are made especially for handloaders, with the type of equipment we use.

My tests show that they do help correct sloppy priming, the one operation that handloaders can do no better than the factory, and is the cause of much inferior ammo. CCI primers seated with excess pressure, and those seated "long" will both pass a mniimum drop test blow 100% for firing, and are the only make I've tested that did. Shooters in Mexico and Canada can now obtain CCI primers, as distributors have already been stocked, and many dealers have them on the shelf. The primers are fully as good as the fine reputation they have made with handloaders and competitive shooters. I'm very happy they will be available to our Mexican and Canadian friends. The U. S. Government has let some large contracts for CCI primers. Dick is justly proud the CCI formulas were specified, rather than government specifications, after extensive testing. I don't believe there is a better primer made in this country, or the world.

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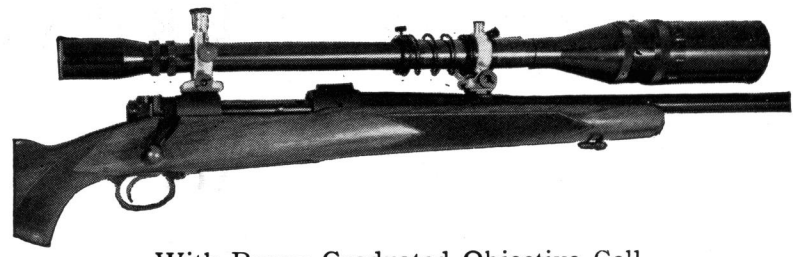

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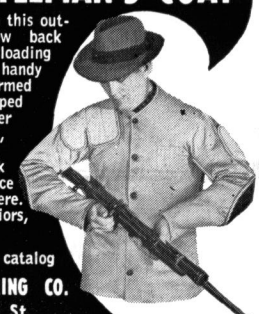

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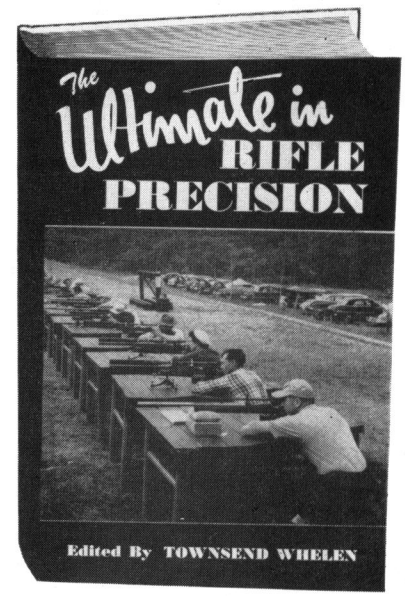

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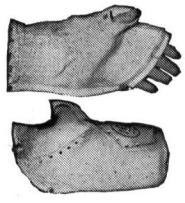

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We have recently received some literature describing a new combined bullet trap for pistol targets with an electrically timed and target turning mechanism. This mechanism is manufactured by PETR-O-FIRE, Division of Cal. Cast Products Corporation, 2801 Clearwater Street, Los Angeles 39, California.

The bullet trap, mounted on a steel cabinet which houses the target operating mechanism and provides storage space, accommodates standard 24" X 24" pistol targets.

The timing mechanism provides for target exposures of 10 seconds, 20 seconds, 5 minutes and 10 minutes. The sequence of operations (all completely automatic) are: With the timer selector switch set for the desired shooting period, as the range officer gives the command "ready on the firing line" he presses a button on the end of a cord at the firing line. This turns the target from face the shooter position to edgewise. When the target reaches the edgewise position it energizes the 3 second switch. At the end of the 3 second period the target turns to face position. When the target comes to rest in the face position it energizes the switch for the firing period selected. At the end of the selected firing period the target turns edgewise and this energizes the 3 second switch and after the 3 second interval the target turns to face position and a green light indicates the "home" or starting position.

The basic unit is for a single target but any desired number of targets for a range installation may be provided, all operating from a single control button. While designed essentially for indoor ranges, it is stated that the mechanism may be used on outdoor ranges, either with or without the bullet trap feature.

We do not know anything about what the cost of this mechanism may be, but expect that it would be considerable. However, for club or police ranges where a considerable number of shooters do a lot of pistol shooting, both training and competition, this mechanism might well be investigated as an investment item.

PHT

PAN-AMERICAN GAMES RIFLE AND PISTOL RANGE

The following information is taken from the NEWS BULLETIN, published by the Illinois State Rifle Association, for February 1959.

The City of Waukegan has offered to construct the Rifle and Pistol Range for the 1959 Pan-American Games on a strip of land at the north edge of Waukegan extending to Lake Michigan. Since this range is being built by Waukegan on Waukegan land, it will remain their property after the Pan-American Games. To have a permanent range constructed here according to International Shooting Union requirements will give the Mid-West quite a boost.

The firing line will have a long shooting house with approximately 50 points, each of which will have Dutch doors, allowing the shooter to open either the top or bottom as the need may be. The targets will be at 50 meters, 100 meters and 300 meters, and all will be operated from pits. Electrical signals for each target will be controlled from behind each firing point. The slow fire pistol shooting will be incorporated into the 50 meter range. There will also be several bays for rapid fire pistol at 25 meters. The present plans call for earthen berms located so as to make this a safety range. One berm will be at the east end of the range overlooking the lake, so that shooting will not be interrupted by passing boats.

The Waukegan Lakers, the local gun club, is planning many smallbore, bigbore and pistol tournaments when the "Games" are but a memory.

The Skeet and Trap competitions will be held at the Lincoln Park Gun Club overlooking Lake Michigan, just a short distance north of the Chicago Loop. This is ideally located and practically in the heart of Chicago, but few people visit it as it is between the Outer Drive and Lake Michigan. Thousands, rather hundreds of thousands, zip by at 45 to 55 miles per hour going to and from the Loop.

Also from the February NEWS BULLETIN we learn that a QUAD-STATE .30 CALIBER CO-ORDINATION COMMITTEE has recently been organized to co-ordinate high power rifle tournament dates in the states of Illinois, Indiana, Iowa and Wisconsin.

Mrs. Marie E. Davis, 1306 Nyoga Place, Highland Park, Illinois, is secretary of the Illinois State Rifle Association which sponsors a very complete competitive program for all types of rifle and pistol shooting. Shooters in Illinois and neighboring states would do well to be members of this Association and keep up to date on shooting events via the NEWS BULLETIN published each month.

TRADIN' POST

Classified type ads; no display. **Rates:** — 10¢ per word per insertion, prepaid. Minimum charge $1.00. Closing date for ads is the last Saturday of the month preceeding publication.

Groups of figures, abbreviations and initials count as words. Hyphenated word counts as two words. Name and address of advertiser is counted. Use full words instead of initials and abbreviations and make your meaning entirely clear — get your money's worth.

FOR SALE: Finnish Lion cal. 22 Free Rifle. Complete with all accessories. Excellent condition — $135.00. New Schultz & Larsen 6.5mm Free Rifle. Custom stock. All accessories—$180.00 Clo. Maurice E. Kaiser, Standing Group, NATO, The Pentagon, Washington 25, D. C.

Stool Shootin' Stuff

(Continued from Page Fifteen)

yards, and with a reasonable deduction for the depression of the valley, a measurement of 609 yards for the bullets flight has been attested to. To accomplish that, it takes a good rifle, a good hold, and an accurate interpretation of the Kentucky windage required, and Clair is pretty expert at that as more than once he has shown us up in the 300 meter events. The target that I have is really amazing, and if my rifle shoots that well I will be the happiest guy on Cape Cod, continually striving to get off of it far enough to an area where I can get that long range shot, but I am not optimistic enough to think I will take the laurels away from Irene. I was happy to receive the enthusiastic reports of my 7 m/m bullets that I have sent to Don and Clair to test. I will be making up some more batches ready for my gun when it comes.

From the Elmira meeting, I gathered there were not quite so many new guns built this past winter, but among those I heard of was a new one that Paul Gottschall made, and believe it or not, it is a 6 m/m caliber. Paul found it a little hard to come to that decision but after he had it made and found on testing it in a high velocity wind that the 6 m/m only moved half as far off center of the bull as did his .222, he began to develop more enthusiasm. This feeling must be spreading because there are more and more calls for real good 6 m/m bullets.

Ed McNally couldn't make the morning session of the first day's meeting but it was typical of him to get there as soon as he could, and at the same time he started celebrating the first day of his actual retirement from business. Ed rightly says that he is going to make every day count as it comes up, and if he decides to cut short his contemplated automobile-trailer tour, it is just because that is what he feels like doing. He won't find things dull during his retirement, and I am sure there are many who join me in wishing him well in everything he so justly deserves.

Cordially yours,

Ernest Stuhlmueller

FOR THE SHOOTER BY A SHOOTER

BSA MARTINI-INTERNATIONAL

.22 Caliber Martini International Target Rifle, in the light or heavy weight rifle, for the RIGHT or LEFT HAND SHOOTER,
without sights $150.00
BSA Martini with factory sights $170.00

FREELAND and REDFIELD SIGHTS AVAILABLE

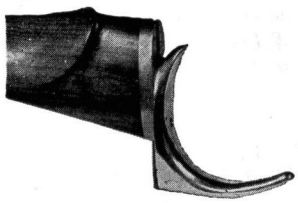
All Angle Tripod

FREELAND BENCH REST STAND with 3 sand bags $20.00

FREELAND ALL ANGLE TRIPOD, in green, gray or black, mention scope when ordering $14.95
FREELAND BIPOD, mention scope when ordering $17.50

FREELAND SWISS TYPE PALM REST $18.50
FREELAND PALM REST, ball type $12.50
BALL TYPE PALM REST for the 513 Rem. $14.00

44" PARKER-HALE BENCH REST LENGTH CLEANING ROD $3.75
ALUMINUM CASE for 44" Rod $3.00



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FREELAND Base Plate with Free Rifle Hook $13.50
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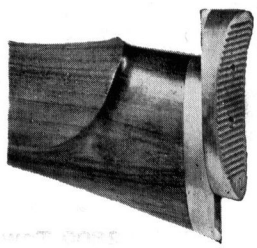

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TENTS ..... from $18.60 up
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FREELAND Dewar Type Cartridge Block $2.30
FREELAND .30 Caliber Shooting Kit $12.00
FREELAND ¼ Opening Rifle Kit $17.50
FREELAND Conventional opening ½ tray kit $15.00
FREELAND Conventional opening full tray kit $15.75
FREELAND 48 ¾" Rifle Trunk, mention gun $22.00
(Above kits and trunks are metal covered)
FREELAND Leatherette Rifle Kit .. $22.00
(All kits and trunks fob Rock Island)
FREELAND Fore-end Stops for 52M, 513 & 75 Win. $2.50
FREELAND Fore-end Stop 40X $3.00
FREELAND Universal Fore-end Stop, for custom stocks $5.50
FREELAND Deluxe Cuff & Q. D. Hook $4.00
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FREELAND Junior Front Sight $12.50
FREELAND Tube Rear Sight, with regular scope mounts $32.50
FREELAND Military Front Sight ... $12.50
FREELAND Superior Twin Set of Sights, front $26.00
FREELAND Sheepwool Zipper Cases for straight scopes $5.25
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CROSMAN #140 Air Rifle $18.95
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SCHRADER Trigger Pull Gauge $5.30
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MONTE CARLO Cheek Pads $4.50
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BALSCOPE SR. Spotting Scope $115.00
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WEAVER K 2.5 Scope $37.50
Redfield X-TUBE $17.50
Redfield Olympic Sights $10.50 rear .. $19.25
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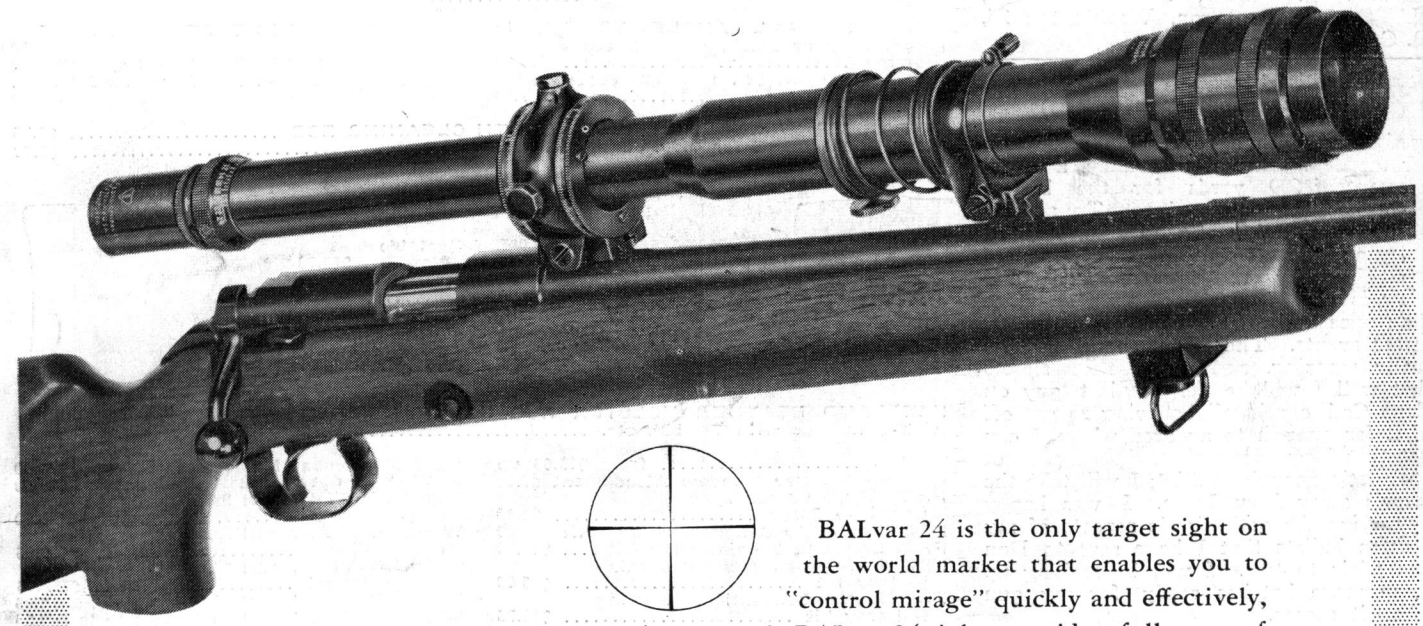

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